Notice number: 2022/00128

COMMISSION OF INQUIRY INTO FORENSIC DNA TESTING IN QUEENSLAND

Section 5(1)(d) of the *Commissions of Inquiry Act 1950*

STATEMENT OF MATTHEW RIGBY

I, Matthew Rigby, Acting Executive Director, Office of the Director-General, of 33 Charlotte Street, do solemnly and sincerely declare that:

1. I am the Acting Executive Director, Office of the Director-General.

2. I have been issued with a requirement to provide a written statement by Commissioner Sofronoff QC, Notice 2022/128.

3. I have considered the schedule of topics provided by the Commissioner.

4. In this statement I have made reference to correspondence. For ease of reference to this correspondence, the file names have been updated to include the date and time at which the latest email was received. The Commission should note that the original file name of each document as included in this statement is exclusive of the date and time.

Background

Question 1 - Describe your qualifications, current position, how long you have held that position and duties and responsibilities.

5. I am currently Acting as the Executive Director in the Office of the Director-General with Queensland Health.

6. I have been Acting in this role since April 2022.

[redacted] ..... [redacted]

Matthew Rigby Witness

7. In this role I oversee the operations of the Office of the Director-General, and day-to-day operations of the Ministerial and Executive Services Unit, System Secretariat and Budget Estimates, Business, Governance & Engagement teams for the Office of the Director-General.

Question 2 - Describe (in brief) your work history.

8. I have worked for the Queensland Government since 1997, primarily in the areas of Communication, stakeholder engagement, events, protocol and media. This has been across the Queensland Police Service, the Queensland Fire and Emergency Services, the Public Safety Business Agency, the Department of the Premier and Cabinet, Metro South Hospital and Health Service and Queensland Health.

Question 3 - Describe any previous experience with forensic DNA testing or analysis.

9. I have no experience in DNA testing or analysis.

Question 4 - Describe how your current position relates to the DNA Analysis laboratory.

10. My role coordinates information flow into the Director-General and as such I have been involved in correspondence and meetings with the Director-General related to the DNA Analysis laboratory.

October 2021 - June 2022

Question 5 - Explain in detail all meetings, discussions or correspondence you were involved in with management of Queensland Health or the Queensland Police Service in relation to:

a. Thresholds used by the DNA Analysis Unit for determining what testing and processing would be applied to samples (for example, thresholds for reporting "No DNA detected" or "insufficient DNA for further processing");

11. I was a participant in a meeting on 2 June 2022 at 1.00pm where this was discussed and documents were subsequently emailed to the Minister, Simon Zanatta, Shaun

[redacted]

Drummond and me. The meeting was attended by Shaun Drummond, the Minister, Simon Zanatta, Lara Keller and me. The discussions included the concerns that were being raised in the media about FSS and the most appropriate approach going forward to respond to these concerns, including the possibility of a Commission of Inquiry into FSS. I recall in this meeting that Lara Keller did call Cathie Allen into her office for advice. A copy of these emails are attached as:

- **MR-00 20220602 - 1433 - FW: Options Papers - First one and Draft of Second** and includes:
    - an email from Cathie Allen at 2.08pm attaching the first options paper (#184) and an email from QPS officer Dale Freiberg.
    - an email from Lara Keller at 2.33pm attaching 2018 options paper and 2022 review paper.
- **MR-01 20220602 - 1547 - FW: Documents - timeline and number of requests** and includes:
    - an email from Cathie Allen at 3.14pm attaching a timeline of communications and excel spreadsheet.
    - an email from Lara Keller at 3.47pm forwarding the attachments in Cathie Allen's email and document containing number of requests for further concentration of samples reported as "Insufficient DNA Detected".

12. I recall that after this meeting I attended a briefing with Jasmina Joldic, Associate Director General about these matters and the possibility of a Commission of Inquiry into FSS.

b. The Queensland Police Service submission in response to the Womens Safety and Justice Taskforce Discussion Paper 3 regarding the overall success rate of obtaining a useable profile when they requested re-testing of samples reported as "DNA insufficient for further processing",

[redacted]

13. My understanding is that the media article in the Australian Newspaper on 2 June and the subsequent media reporting on 2 June was informed by the Queensland Police Service submission to the Womens Safety and Justice taskforce. This is the meeting at 1.00pm, referred to in paragraph [11] above.

c. The processing and reporting of results in the case involving the murder of Shandee Blackburn;

14. I was not involved in processing or reporting of results.

d. Any matter raised by the Hedley Thomas podcast "Shandee's Story" or other media discussion regarding forensic DNA testing in Queensland.

15. On 16 May 2022, I was provided with a copy of a media article in relation to the limitations of the Terms of Reference for the independent investigation. A copy of the emails are attached as **MR-02 20220516 - 1142 - FSS review article** and **MR-03 20220516 - 1417 - RE: FSS review article.**

16. On 17 June 2022, the podcast by Hedley Thomas was mentioned at the routine morning Executive Leadership team (ELT) "hot issues briefing". At 8.05am, I emailed a link to this podcast to the ELT for their information. I received an email back from A/DDG Prevention Division. A copy of this email is attached as **MR-04 20220617 - 1352 - RE: Link – Podcast.**

Decision on 6 June 2022

Question 6 - What involvement, if any, did you have in two decisions made on or about 6 June 2022, namely:

a. that the threshold for reporting samples as "DNA insufficient for further processing" be removed, and samples in the range 0.001—0.0088 ng/uL (range) be processed; and

17. I was not involved in this decision.

[redacted]

....

Matthew Rigby Witness

b. that some or all new samples in the range 0.001—0.0088 ng/uL would go directly for amplification rather than for concentration,

18. I was not involved in this decision.

Explain your involvement in detail, with reference to material and information you had access to in relation to the decisions, meetings, discussions or correspondence in relation to the decisions, and others' contribution to the decisions.

Question 7 - If you had no involvement in the decisions made on or about 6 June 2022, what is your understanding, and explain the basis for your understanding, of the following:

a. Who made those decisions;

19. I understand this was made by the Acting Director-General, Mr Shaun Drummond.

b. When those decisions were made;

20. I believe this decision was made on 6 June. My belief is based on discussions I had with Acting Director-General Dr David Rosengren in the lead-up to his decision on 19 August 2022.

c. The reasons for the decisions;

21. I believe this decision was made as an interim measure prior to findings of the Commission of Inquiry with the plan to revert to the DNA testing workflow that was in place prior to 2018.

d. The material or information on which the decisions were based;

22. I understand this decision would have in part been made based on the meeting on 2 June 2022 at 1.00pm where this was discussed and documents were subsequently emailed to the Minister, Simon Zanatta, Shaun Drummond and me as outlined at paragraph [11] above.

[redacted]

Matthew Rigby Witness

e. The meetings, discussions or correspondence in relation to the decisions.

23. As stated above in paragraph [11], there was a meeting on 2 June 2022 and the correspondence that same day from Lara Keller in relation to the decisions.

Question 8 - The impetus for Lara Keller's email to you, Shaun Drummond, the Minister for Health and others dated 2 June 2022, 2.33pm, attaching the 2018 "Options Report" presented to the Queensland Police Service, a 2022 "Update Report" and an email from QPS officer Dale Freiberg, and:

24. I believe the email was sent following the discussions in the meeting at 1.00pm, referred to in paragraph [11] above, to provide further information in relation to the matters discussed. The email from QPS officer Dale Freiberg is an attachment to Laura Keller's email of 2 June 2022 at 2.33pm in the attachment to this Statement titled **MR-00 20220602 - 1433 - FW: Options Papers - First one and Draft of Second**, referred to in paragraph [11] above.

a. Your understanding of the contents of that material;

25. My understanding is that the content related to decisions made about the approach to the testing of DNA in 2018.

b. Your consideration at that time, of what steps might be taken by you or the Department of Health relating to processing samples in the range.

26. It is not my role to take steps relating to the processing of DNA samples.

Decision on 19 August 2022

Question 9 - Explain any discussion about or reconsideration of the decisions of 6 June 2022 that occurred between 6 June 2022 and 19 August 2022 and identify:

27. On Friday 12 August 2022, at around 6.15pm I had a phone call with Dr David Rosengren Acting Director-General, and Megan Fairweather, A/Chief Legal Counsel. I recall that the Acting Chief Legal Counsel advised about a potential discrepancy in

[redacted]

information provided to the Acting Director General Shaun Drummond about the options which I believe had formed the basis of his decision on 6 June 2022. The discussion was about pre-2018 DNA testing workflows, however, I do not recall any further details being discussed about the nature of the potential discrepancy.

28. On Monday 15 August 2022, I was copied into an email from QH Legal with an email to the DG from 3 June 2022. A copy of this email is attached as **MR-05 20220815 – 1724 - FW: Forensic DNA testing impacts.**

29. On Monday 15 August 2022, around 5.00pm I was in a phone conversation with Dr David Rosengren, Acting Director-General and Acting Chief Legal Counsel, Megan Fairweather. I recall the purpose of the discussion was to receive an update from the Acting Chief Legal Counsel in relation to the discussion of Friday evening. To the best of my recollection there was no further update as inquiries were still underway.

30. On Tuesday 16 August 2022 at about 11.30am I attended a meeting for 30 minutes at 1 William Street with the Acting Director-General Dr David Rosengren, Associate Director-General Jasmina Joldic, Executive Director David Harmer, Director Stephen Stewart. The Acting Chief Legal Counsel, Megan Fairweather also attended part of that meeting via Teams. This meeting was to update Associate Director General Jasmina Joldic following her annual leave. I do not recall specifically any discussion about thresholds or the 6 June 2022 decision at this meeting.

31. Around 2.45pm on 17 August 2022, I had a telephone conversation with the Acting Director-General, Dr David Rosengren and Inspector David Neville of the Queensland Police Service. Inspector Neville had been nominated as the Queensland Police Service point of contact for Queensland Health. In this conversation there was a discussion about the proposed process going forward and the approach to the Acting Director-General sending out a memo to FSS to clarify testing for staff. I recall that Dr Rosengren flagged with Inspector Neville his desire to be able to provide clarity to FSS staff about testing requirements, following an update in advice regarding pre-2018 testing, through a memorandum. It was agreed that a draft of the memo would be provided to QPS for their feedback.

[redacted]

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32. On 17 August 2022 at 5.29pm I received an email from the A/Chief Legal Counsel with a draft memorandum and a workflow attachment. A copy of this email is attached as **MR-06 20220817 - 1729 – A_DG draft memo for FSS microcon requirements.**

33. I emailed a copy of this memorandum on 17 August 2022 at 5.53pm, to Dr David Rosengren. I had a telephone conversation with Dr David Rosengren who reviewed the draft memorandum and sent me an updated draft via email at 6.02pm for me to provide to QPS. A copy of this email is attached as **MR-07 20220817 - 1753 - Fwd: A_DG draft memo for FSS microcon requirements.**

34. I sent a copy of this draft memo, that had been edited by Dr David Rosengren and Standard Operating Procedure (SOP) to David Neville from the QPS at 7.08pm. A copy of this email is attached as **MR-08 20220817 - 1908 - FSS SOP draft memo.**

35. On 18 August 2022 at 2pm, I received an email from David Neville notifying that he was in the process of internal consultation and would get back to me either that afternoon or the following morning. A copy of this email is attached as **MR-09 20220818 - 1400 - RE: FSS SOP draft memo.** I responded to David Neville thanking him for his email and I verbally briefed David Rosengren in relation to this. A copy of this email is attached as **MR-10 20220818 - 1404 - RE: FSS SOP draft memo.**

36. On 19 August 2022 at 9.22am, David Neville replied to me, with a cc to Duncan McCarthy within QPS providing feedback to Queensland Health. I sent this email to Dr David Rosengren and Megan Fairweather on 19 August 2022 at 9.29am. A copy of this email trail is attached as **MR-11 20220819 – 0929 - FW: FSS SOP draft memo.**

37. At 11.16am following discussions with Dr David Rosengren, I sent a copy of the draft memo to Helen Gregg and Megan Fairweather for their feedback. A copy of this email is attached as **MR-12 20220819 - 1116 - Updated memo for consideration.**

38. At 12.51pm I received an email from Megan Fairweather to Helen Gregg and me with feedback. A copy of this email is attached as **MR-13 20220819 - 1251 - RE: Updated memo for consideration.**

[redacted]

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39. At 1pm I received a reply from Helen Gregg to Megan Fairweather and me. A copy of this email is attached as **MR-14 20220819 - 1300 - RE_ Updated memo for consideration.**

40. I received a further email from Megan Fairweather at 1.03pm requesting an update to the contact details on the memo. A copy of this email is attached as **MR-15 20220819 - 1303 - RE_ Updated memo for consideration.**

41. At 1.37pm Helen Gregg responded to Megan Fairweather and included me in this email. A copy of this email is attached as **MR-16 20220819 - 1337 - RE_ Updated memo for consideration.**

42. At 1.47pm I sent the memo and supplementary information from Helen Gregg back to Dr David Rosengren for his approval. A copy of this email is attached as **MR-17 20220819 - 1347 - FW: Updated memo for consideration.**

43. I had a discussion with Dr David Rosengren in relation to this feedback and he provided an updated version of the Memo at 2.17pm. A copy of this email is attached as **MR-18 20220819 - 1417 - RE- Updated memo for consideration.**

44. At 2.17pm on 19 August 2022, I called Helen Gregg to let her know that the correspondence would come through once finalised for her to action this.

45. At 2.22pm Helen Gregg came back to me notifying that she was happy with the amendments from the acting DG. A copy of this email is attached as **MR-19 20220819 – 1422 - RE_ Updated memo for consideration.**

46. Following confirmation that Helen Gregg was happy with the amendments to the memorandum, I forwarded a copy of the memorandum and SOP extract to Dr David Rosengren for approval at 2.32pm. I included Renaie Tesch in this email chain so she would be able to finalise the correspondence with the Correspondence team. A copy of this email is attached as **MR-20 20220819 - 1432 - FW- Updated memo for consideration.**

[redacted]

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Matthew Rigby Witness

47. At 2.36pm Renaie Tesch provided feedback to change the word 'should' to 'must' on the memo. A copy of this email is attached as **MR-21 20220819 - 1436 - RE_ Updated memo for consideration.**

48. At 2.37pm, Dr David Rosengren approved this via email. A copy of this email is attached as **MR-22 20220819 – 1437 - Re_ Updated memo for consideration.**

49. At 2.38pm Helen Gregg responded and confirmed the suggestion of changing the word 'should' to 'must'. A copy of this email is attached as **MR-23 20220819 - 1438 - RE_ Updated memo for consideration.**

50. Emails at 2.40pm, and 2.42pm between the Chief Legal Counsel and Helen Gregg have been identified as being subject to legal professional privilege and are accordingly not attached to this statement.

51. At 2.44pm Dr David Rosengren provided a final version of the memo to Renaie Tesch and me. This was formatted by Renaie and then she emailed me a copy of the final memo. A copy of this email is attached as **MR-24 20220819 – 1444 - Final final.**

52. At 2.58pm I emailed the Acting Chief Legal Counsel, Helen Gregg and Renaie Tesch to provide them with a final version of the memo. A copy of this email is attached as **MR-25 20220819 – 1458 - Final FSS memo and SOP.** I advised Helen that she would receive a copy of the signed memo for her to action from the DG Correspondence email account and that I would provide a copy of the final memo and the SOP to QPS for their information. Helen Gregg acknowledged receipt of this email.

53. At 3.03pm Renaie Tesch sent the memo and SOP extract to the DG Correspondence email for them to action and distribute. A copy of this email is attached as **MR-26 20220819 – 1503 - FW: Final FSS memo and SOP.**

54. At 3.20pm DG Correspondence sent the memo and SOP extract to Helen Gregg to action with a copy to Dr David Rosengren, Keith McNeil, me and Megan Fairweather. A copy of this email is attached as **MR-27 20220819 – 1520 - C-ECTF-22-13557 -**

[redacted]

DG MEMO - from Dr David Rosengren, Acting Director-General, Queensland Health - Subject of memorandum

55. At 3.29pm Megan Fairweather responded to the email from 1.37pm that Helen Gregg had sent through. This email has been identified as being subject to legal professional privilege and accordingly is not attached to this statement.

56. At 4.29pm I sent a copy of the memo and SOP extract to David Neville of the QPS with a copy to Duncan McCarthy of the QPS and Dr David Rosengren. A copy of this email is attached as **MR-28 20220819 - 1629 - RE_ FSS SOP draft memo.**

a. Who was involved;

57. Information provided above from paragraphs [27]-[56].

b. What occurred in any correspondence or discussions;

58. Information provided above from paragraphs [27]-[56].

c. The reason for any discussion or reconsideration.

59. Information provided above from paragraphs [27]-[56].

Question 10 - What involvement, if any, did you have in a decision made on or about 19 August 2022, or consideration leading to that decision, to determine the process to be followed for Priority 1 or 2 samples with a quantitation value between 0.001 ng/uL and 0.0088 ng/uL? Explain your involvement in detail, with reference to material and information you had access to in relation to the decision, meetings, discussions or correspondence in relation to the decision, and others' contribution to the decision.

60. I was not involved in making this decision, please see my answer below to Question 11.

Include in your answer your understanding of:

a. Who made that decision;

[redacted]

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Matthew Rigby Witness

b. When the decision was made;

c. The reasons for the decision;

d. The reason for reconsidering the decision made on 6 June 2022, and how, when and by what means that reason came to your attention; e. The material or information on which the decision was based;

e. The meetings, discussions or correspondence in relation to the decision.

Question 11 - If you had no involvement in the decision made on or about 19 August 2022, or consideration leading to that decision, what is your understanding, and explain the basis for your understanding, of the following:

a. Who made that decision;

61. The Acting Director-General, Dr David Rosengren, made this decision. I provided support to finalise and communicate the decision,

b. When the decision was made;

62. The decision was made after email received from QPS on August 19, 2022, as outlined in paragraph [36].

c. The reasons for the decision;

63. It is my clear understanding the reason for the decision was to provide absolute clarity about the process for FSS staff.

d. The reason for reconsidering the decision made on 6 June 2022, and how, when and by what means that reason came to your attention;

64. This decision was made by Acting Director-General, Dr David Rosengren on August 19, following advice received by QPS as outlined in paragraph [36] and in consultation with Helen Gregg and Megan Fairweather.

[redacted]

e. The material or information on which the decision was based;

65. See points covered above in relation to the timeline of information provided above from paragraphs [27]-[56].

f. The meetings, discussions or correspondence in relation to the decision.

66. Information provided above from paragraphs [27]-[56].

Question 12 - In relation to the memorandum of 19 August 2022, explain the consultation undertaken by you or (to your knowledge) by other members of the Department of Health, before or after the decision was made with:

a. The Managing Scientist of the DNA laboratory;

67. Nil

b. The management team of the DNA laboratory;

68. I consulted with Helen Gregg on 19 August with the expectation that she would consult with her team

c. Scientists working in the DNA laboratory;

69. Nil

d. Any Deputy Director-General or Acting Deputy Director-General;

70. Nil.

e. Mr Shaun Drummond;

71. Nil

f. The Queensland Police Service.

72. See information provided at paragraphs [31], [34]-[36] and [56] above.

[redacted]

Question 13 - In relation to the memorandum of 19 August 2022, explain what steps were put in place by you or other members of the Department of Health to communicate and explain the decision, and the reasons for the decision, to scientists and management of the DNA laboratory.

73. At 2.17pm on 19 August 2022, I called Helen Gregg to let her know that the correspondence would come through once finalised for her to action this, as outlined in paragraph [44] above.

74. At 2.58pm I emailed the Acting Chief Legal Counsel, Helen Gregg and Renaie Tesch to provide them with a final version of the memo as outlined in paragraph [52] above. I advised Helen that she would receive a copy of the signed memo for her to action from the DG Correspondence email account and that I would provide a copy of the final Memo and the SOP to QPS for their information. Helen Gregg acknowledged receipt of this email.

75. At 3.03pm Renaie Tesch sent the memo and SOP extract to the DG Correspondence email for them to action and distribute as outlined in paragraph [53] above.

76. At 3.20pm DG Correspondence sent the memo and SOP extract to Helen Gregg to action with a copy to David Rosengren, Keith McNeil, me and Megan Fairweather as outlined in paragraph [54] above.

All the facts and circumstances declared in my statement, are within my own knowledge and belief, except for the facts and circumstances declared from information only, and where applicable, my means of knowledge and sources of information are contained in this statement.

I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the *Oaths Act 1867*.

[redacted]

Matthew Rigby Witness

TAKEN AND DECLARED before me at Brisbane in the State of Queensland this 19th day of September 2022

[redacted]

Matthew Rigby

Witness Nicola Karen Lord
Government legal officer

SCHEDULE OF EXHIBITS

Question 5
MR-00 20220602 – 1433 - FW: Options Papers - First one and Draft of Second
MR-01 20220602 - 1547 - FW: Documents - timeline and number of requests
MR-02 20220516 - 1142 - FSS review article
MR-03 20220516 - 1417 - RE: FSS review article.
MR-04 20220617 - 1352 - RE: Link – Podcast
Question 9
MR-05 20220815 – 1724 - FW: Forensic DNA testing impacts
MR-06 20220817 - 1729 - A/DG draft memo for FSS microcon requirements
MR-07 20220817 - 1753 - Fwd: A/DG draft memo for FSS microcon requirements
MR-08 20220817 - 1908 - FSS SOP draft memo
MR-09 20220818 - 1400 - RE: FSS SOP draft memo
MR-10 20220818 - 1404 - RE: FSS SOP draft memo
MR-11 20220819 - 0929 - FW: FSS SOP draft memo
MR-12 20220819 - 1116 - Updated memo for consideration
MR-13 20220819 - 1251 - RE: Updated memo for consideration
MR-14 20220819 - 1300 - RE_ Updated memo for consideration
MR-15 20220819 - 1303 - RE_ Updated memo for consideration
MR-16 20220819 - 1337 - RE_ Updated memo for consideration
MR-17 20220819 - 1347 - FW: Updated memo for consideration
MR-18 20220819 - 1417 - RE- Updated memo for consideration
MR-19 20220819 – 1422 - RE_ Updated memo for consideration
MR-20 20220819 - 1432 - FW- Updated memo for consideration
MR-21 20220819 - 1436 - RE_ Updated memo for consideration
MR-22 20220819 – 1437 - Re_ Updated memo for consideration
MR-23 20220819 - 1438 - RE_ Updated memo for consideration
MR-24 20220819 – 1444 - Final final
MR-25 20220819 – 1458 - Final FSS memo and SOP

[redacted] ..... [redacted] .....

Matthew Rigby Witness

MR-26 20220819 – 1503 - FW: Final FSS memo and SOP
MR-27 20220819 – 1520 - C-ECTF-22-13557 - DG MEMO - from Dr David Rosengren, Acting Director-General, Queensland Health - Subject of memorandum
MR-28 20220819 - 1629 - RE_ FSS SOP draft memo

[redacted]

Matthew Rigby Witness

From: Lara Keller
Sent: Thu, 2 Jun 2022 14:33:22 +1000
To: Shaun Drummond [redacted] Matthew Rigby
Cc: FSS Corro
Subject: FW: Options Papers - First one and Draft of Second
Attachments: #184 Review of Microcon Options paper QPS (Final report).pdf, Assessment of low quant DNA Samples.docm, Email advice Supt Frieberg on Options Paper_Feb 2018.pdf

Good afternoon All

Papers attached as discussed.

2018 options paper : 1.86% were suitable to be uploaded to the National Criminal Investigation DNA database
2022 review paper: 5.3% " " (but note smaller number assessed)

Thanks and Kind Regards
Lara

Lara Keller B App Sc (MLS), Grad Cert Health Mgt, MAIMS, CMgr FIML
A/Executive Director
Forensic and Scientific Services
Prevention Division, Queensland Health
[redacted]
a Administration, Level 1, 39 Kessels Road, Coopers Plains, QLD, 4108
e [redacted] w www.health.qld.gov.au/fss

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and emerging.

From: Cathie Allen <[redacted]
Sent: Thursday, 2 June 2022 2:08 PM
To: Lara Keller <[redacted]
Subject: Options Papers - First one and Draft of Second

Hi Lara

The first options paper is the pdf doc = #184 review of Microcon Options paper QPS. Attached email from Supt Frieberg advising her authorisation to proceed with the 'DNA Insufficient' process (dated Feb 2018).

I'll work on the rest and send as it's done.

Cheers
Cathie

Cathie Allen **BSc, MSc (Forensic Science) (She/Her*)**
Managing Scientist
Social Chair, Organising Committee for 25th International Symposium of the
Australian and New Zealand Forensic Science Society (ANZFSS), Brisbane, 11 – 15 Sept 2022
Police Services Stream, Forensic & Scientific Services
Prevention Division, Queensland Health
p [redacted]
a 39 Kessels Road, Coopers Plains, QLD 4108
e [redacted] **w** www.health.qld.gov.au/fss

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and future.

*If you're wondering about the use of pronouns She/Her on this signature block, I encourage you to read some resources available here

#184 KDS 06/08/2018

A review of the automatic concentration of DNA extracts using Microcon® Centrifugal Filter Devices: Options for QPS consideration.

January 2018

Justin Howes and Cathie Allen

A review of the automatic concentration of DNA extracts using Microcon® Centrifugal Filter Devices: Options for QPS consideration.

Published by the State of Queensland (Queensland Health), January 2018

For more information contact:
Forensic DNA Analysis, Forensic and Scientific Services, Department of Health, GPO Box 48, Brisbane QLD 4001.

Document Details

Contact for enquiries and proposed changes

If you have any questions regarding this document or if you have a suggestion for improvements, please contact:

Contact officer: Justin Howes
Title: Team Leader – Forensic Reporting and Intelligence Team
[redacted]

Contents

1. Abstract

All casework DNA extracts that underwent a concentration step using the Microcon® process were evaluated and categorised into whether there was meaningful information obtained or not. This evaluation primarily focussed on samples that underwent an 'auto-microcon' process in 2016.

The findings of this evaluation are presented for the Queensland Police Service to advise on whether they would prefer their Priority 2 samples to continue with the 'auto-microcon' process, or to cease this automatic step and notify the laboratory if particular samples are requested to be reworked.

These options relate to Priority 2 (Major Crime) samples only, as the process developed in 2012 for Priority 3 (Volume Crime) samples will be reinstated with the operationally-required move to process these samples using PowerPlex® 21 system (PP21).

2. Definitions

DNA Profile Intelligence: DNA profile information available for interpretation by Forensic DNA practitioners that is able to be provided to clients.

Fail: In this report, this is DNA profile information that was not suitable for comparing to reference DNA profiles and other casework samples. This word was used to filter the data into two possible outcomes (fail/success).

NCIDD: National Criminal Investigation DNA Database.

QPS: Queensland Police Service.

Success: In this report, this is DNA profile information that was obtained that was suitable for comparing to reference DNA profiles and other casework samples. This word was used to filter the data into two possible outcomes (fail/success).

3. Introduction

Microcon® Centrifugal Filter Devices desalt and concentrate macromolecular solutions such as DNA-containing solutions. They employ Amicon's low binding, anisotropic, hydrophilic regenerated cellulose membrane [1].

The use of Microcon® filters to concentrate extract has been a standard post-extraction process within Forensic DNA Analysis to reduce the volume of

extract from approximately 100uL to ≤35µL for amplification with PowerPlex® 21 system.

Since the implementation of PP21 amplification kit within Forensic DNA Analysis for casework samples in December 2012, extracts with low Quantification values were recommended to be concentrated. Templates of <0.132ng (Quantification <0.0088ng/uL) were found to exhibit marked stochastic effects after amplification [2]. Consequently, a workflow that directed extracts automatically to a concentration step based on Quantification value was implemented ('auto-microcon' process) for Priority 2 samples.

A workflow for Priority 3 samples remained within active Standard Operating Procedures to have the DNA extracts not amplified, nor automatically concentrated with Microcon® filters, but to be held after Quantification and QPS informed that low levels of DNA were obtained that were insufficient for further processing at that stage [3][4].

Anecdotally, the suitability to provide QPS with DNA profile Intelligence from extracts that have been concentrated has been noted to be limited, and added to scientist's time and availability to direct resources to samples with more DNA detected.

4. Data interrogation

The 'auto-microcon' data was interrogated by assessing the DNA profile outcome results reported as Exhibit Report lines as a function of the Quantification value.

The Exhibit lines were interrogated and grouped into two interpretation outcomes as follows:

1. 'Fail': DNA profile interpretation outcomes of 'Complex unsuitable for interpretation', 'No DNA profile', 'Partial unsuitable for interpretation', 'No DNA Detected';

2. 'Success': All other DNA profile outcomes including single source DNA profiles matching assumed known contributors or different reference DNA profiles, mixtures that were suitable for comparison to reference DNA profiles, DNA profiles that were suitable for loading to NCIDD.

NB. These descriptions were used to filter the data. A 'fail' does not mean there was a Quality failure in the process; a 'success' does not necessarily mean a DNA match.

5. Assessment of 'auto-microcon' results

Intent
Evaluate the 'success' or 'fail' outcomes for PP21 samples that were processed in 2016 through the 'auto-microcon' workflow.

Data Analysis
The samples applicable to this experiment had Quantification values in the range 0.001ng/μL to 0.0088ng/μL, and a total number of samples that were processed this way was determined. This total number excluded environmental samples, samples without Quantification values, samples not requested for further work, samples where quality flags were raised, and samples that had not returned results at the time of data collection.

DNA profile interpretation outcomes were grouped into either 'success' or 'fail' as a function of the Quantification value. A percentage of samples that fell into these categories was determined.

The 'auto-microcon' data could be expressed as a function of Quantification value.

The percentage of samples that had an 'auto-microcon' process and led to an NCIDD upload was obtained. This data could be filtered further into the outcome from the NCIDD load, at the time of data collection.

6. Datamine of the difference in pre- and post- Microcon® Quantification values

Intent
Evaluate the difference between the Quantification values obtained for samples prior to the 'auto-microcon' step, and then after the 'auto-microcon' process. This is to assess, through the Quantification data, the effectiveness of the Microcon® step in concentrating the DNA extract.

As this is purely a datamining experiment, only the samples that yielded a result of 'success' were examined.

Data Analysis

The samples applicable to this experiment had Quantification values above 0.001ng/μL and less than 0.015ng/μL where the final result was 'success'.

This range was considered by the author to be able to provide a sufficient demonstration of the trend of the data (N=278 samples).

7. Results and Discussion

7.1 Assessment of 'auto-microcon' results

There were N=1449 samples in the 'auto-microcon' Quantification range, excluding certain samples as per Section 5.

The percentage of samples that resulted in a determination of 'fail' was 89.4% (Fig 1). As expected, the number of 'fails' increased when the Quantification decreased and approached the Limit of Detection of Quantification ie. 0.001ng/µL (Fig 2). This was considered to be due to there being less DNA detected in the extract, and therefore less DNA to concentrate.

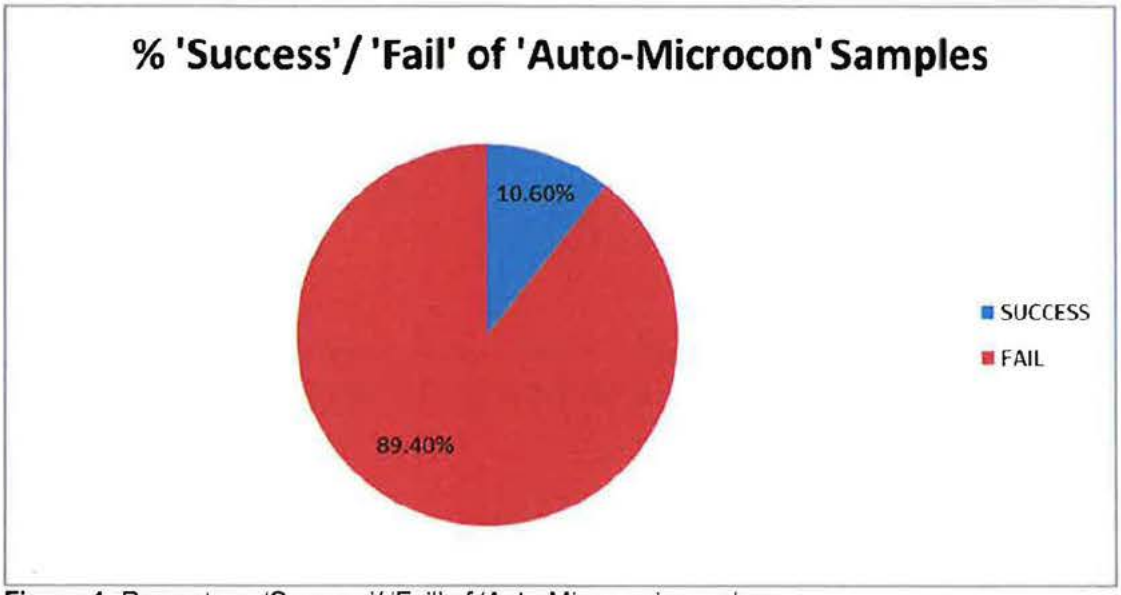


Figure 1: Percentage 'Success'/ 'Fail' of 'Auto-Microcon' samples.

Figure 2: Spread of data and categorised as 'Success'/ 'Fail' for 'Auto-Microcon' samples.

If samples were not processed through the 'auto-microcon' process, what DNA Intelligence would the client miss out on? To evaluate this, the 'success' data was drilled down to the samples that had some NCIDD interaction and in particular, where they were the only samples in the case that were NCIDD-suitable for that particular profile. This represented 1.86% of all 'auto-microcon' samples. In looking at samples that provide *new* Intelligence, that is DNA information available for future linking, or has provided a cold-link, this equated to 1.45% of all 'auto-microcon' samples (Fig 3)..

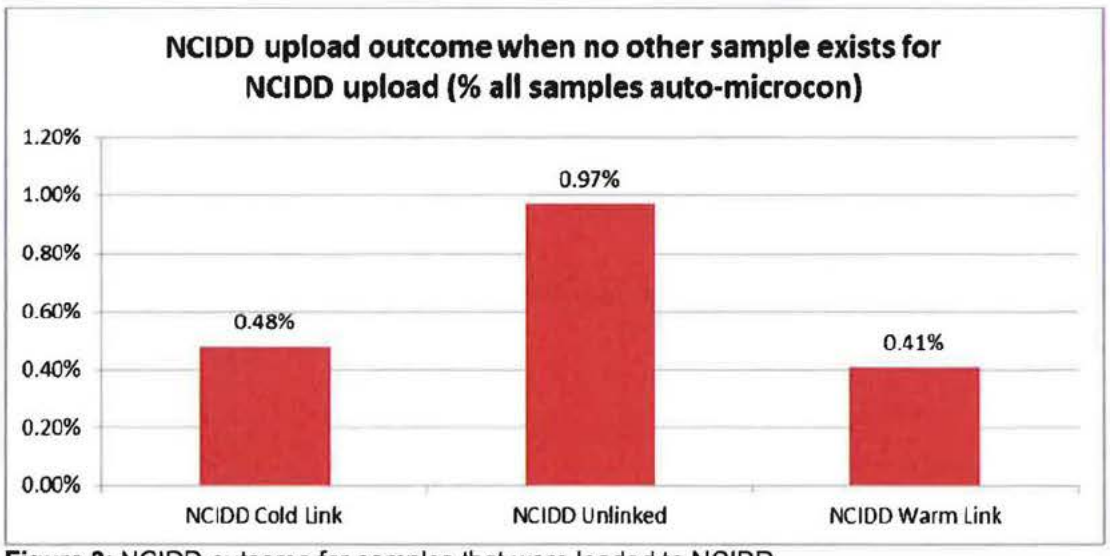


Figure 3: NCIDD outcome for samples that were loaded to NCIDD

This 1.45% of 'auto-microcon' samples is considered to be the pertinent value for the client to assess if the 'auto-microcon' process was not performed.

7.2 Datamine of the difference in pre- and post- Microcon® Quantification values

The samples applicable to this experiment had Quantification values above 0.001ng/μL where the final result was 'success'.

As the Microcon® process concentrates the DNA extract from approximately 100uL to approximately 35μL, in theory it would be a reasonable expectation to obtain approximately two to three-fold increases in DNA Quantification after concentration. Figure 4 shows the plot of the differences found for samples that resulted in 'success'.

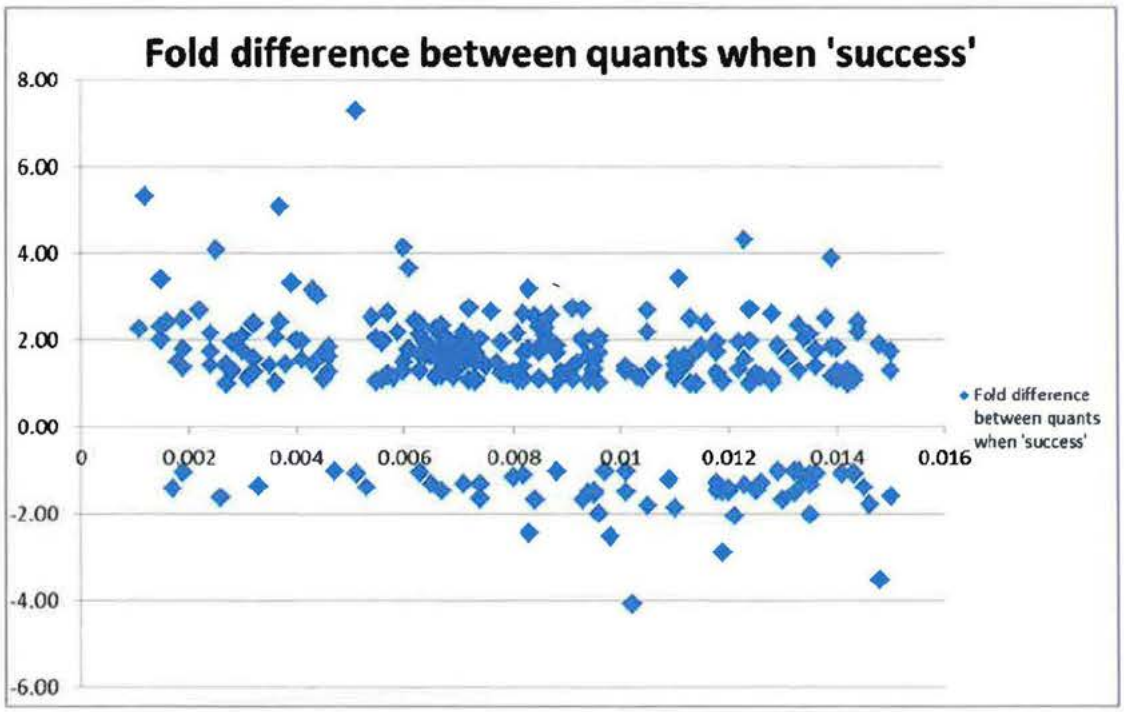


Figure 4: Quantification differences pre and post concentration

The findings are not unexpected as the scatter focusses mostly around two-fold increases in Quantification. It was also not unexpected to observe the variable results. Anecdotally, variability in success rates is found at profile management stage when assessing results of samples that have had this concentration step.

DNA can be lost in the process as seen in Fig 4 where the Quantification values decreased after concentration (below the horizontal axis). Variability in results could be attributed to a number of things, including but not limited to the slight

differences between operators and instrumentation, the differences in substrate type and level of degradation, and the variability in Quantification result.

8. Options for consideration

The options to consider are:

1. Continue with 'auto-microcon' process for Priority 2 (Major Crime) casework; or,

2. Cease the 'auto-microcon' process for Priority 2 (Major Crime) casework and report the exhibit result of 'DNA insufficient for further processing' based on Quantification result.

    a. Priority 1 samples could proceed with the 'auto-microcon' process. If a DNA concentration rework is required, the Microcon® process can be ordered manually by the scientist.

In considering continuing or discontinuing the automatic concentration of DNA extracts for Priority 2 (Major Crime) samples, some key elements to consider include, but are not limited to:

- The opportunity to link DNA profiles on NCIDD would not be initially possible (without automatic concentration) for approximately 1.45% of samples that would qualify for this process. Of the 'auto-microcon' data set (N=1449 samples) evaluated, 1.45% equates to 21 samples;

- Time and cost for processing all samples in the 'auto-microcon' range, including batch preparation, Quality checking and control;

- Time and cost for processing these samples further with additional rework options, as one would expect with low levels of DNA detected initially;

- The ability to potentially reallocate staff time currently allocated to processing, interpreting and reporting 'auto-microcon' samples, to samples with higher DNA yield, thus improving the turnaround time for results on these samples;

- The opportunity to conserve DNA extract for further processing with other technologies should that be considered (eg. Y-STR analysis, Low Copy Number analysis);

- The improved ability to provide quick results to QPS (using the Forensic Register at Quantification stage) indicating low levels of DNA detected, thus enabling QPS to employ further strategies at their discretion (eg. further sampling of items, request the rework);

- The continued ability to process the DNA extract upon client request or depending on priority (eg Priority 1 – Critical Priority).

9. References

[1] QIS 19544v11 – Concentration of DNA Extracts Using Microcon Centrifugal Filter Devices

[2] PowerPlex® 21– Amplification of Extracted DNA Validation. Megan Mathieson, Thomas Nurthen, Cathie Allen. December 2012. Forensic DNA Analysis.

[3] QIS 23008v15 – Explanation of EXR/EXH Results

[4] QIS 24012v13 – Miscellaneous Analytical Section Tasks

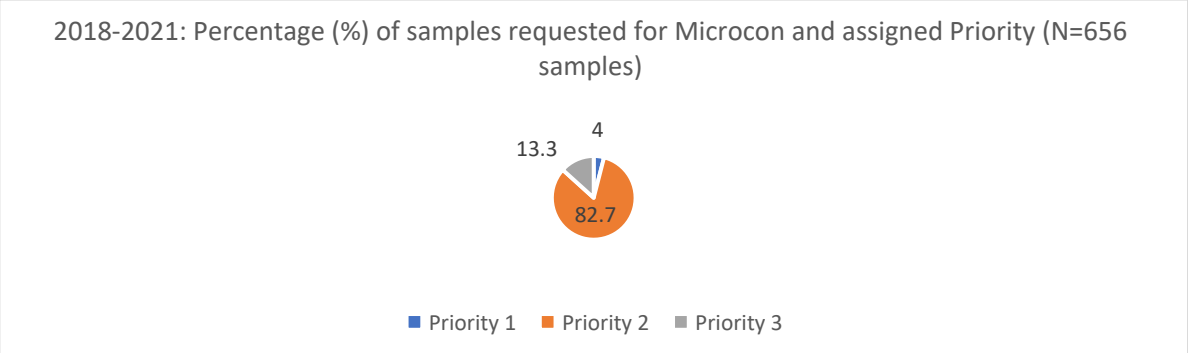
Forensic and Scientific Services

Assessment of Low Quantification Value DNA Samples

Authors: Cathie Allen, Justin Howes and Paula Brisotto

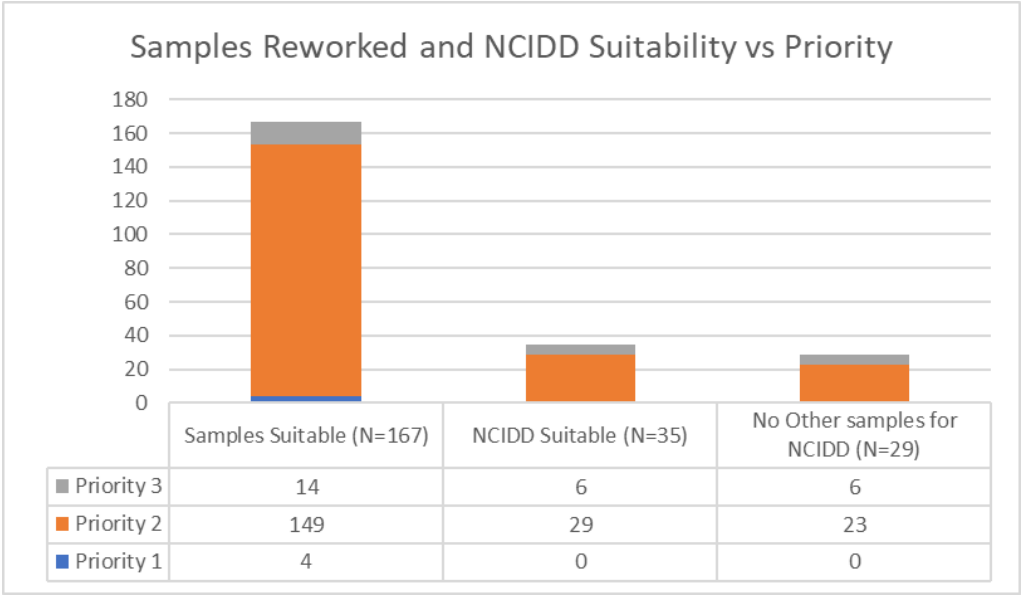
Executive Briefing:

An assessment of all casework DNA samples, with the following criteria was conducted: an initial quantification result of between zero and 0.0088ng/µL, underwent a concentration step and reported results produced between 2018 and 2021. This equated to an assessment of 656 DNA samples. The reported DNA result, which may have been completed after one or more amplifications steps, was categorised into two broad categories - 'suitable for comparison purposes' or 'unsuitable for comparison purposes'.



167 DNA samples (25.5%) were categorised as 'suitable for comparison purposes', with most of these samples being major crime samples. 456 DNA samples (74.5%) were categorised as 'unsuitable for comparison purposes' after concentration and amplification processes.

Of the 167 DNA samples categorised as 'suitable for comparison purposes', 35 DNA samples were able to yield a profile suitable for uploading and searching of the National Criminal Investigation DNA Database (NCIDD). This represents 5.3% of total samples selected for processing.



	Samples Suitable (N=167)	NCIDD Suitable (N=35)	No Other samples for NCIDD (N=29)
Priority 3	14	6	6
Priority 2	149	29	23
Priority 1	4	0	0

Please note the current dataset is different to the previous dataset due to, but not limited to: implementation of the statistical interpretation of four-person mixtures, all DNA samples were selected in this dataset (previously the dataset only included DNA samples assigned to Major Crime cases), active selection of samples for processing by either the Queensland Police Service or Forensic DNA Analysis staff members based on the context of the case or scientific knowledge with respect to the associated parameters from the quantification process, and new instrumentation implemented over that period.

Forensic staff are mindful of consuming all DNA extract when requesting a concentration step. Future technologies may be applied to DNA extracts, however if all extract has been exhausted (through concentration and amplifications processes), no extract will be available for these technologies.

Observations:

Review of quantitation parameters, other than quantitation value, did not yield a trend, however further monitoring of these parameters will be conducted.

The value of 0.0088ng/µL is based on assessment of the data (and equates to 132 picograms). The value of 0.0067ng/µL is based on equating to 100 picograms, and not based on assessment of data.

Options for Consideration:

1. Continue with the current workflow:
    a) Priority 1 samples continue to be automatically concentrated prior to amplification if the sample falls into the quantitation range of 0.001ng/µL to 0.0088 ng/µL
    b) Priority 2 and Priority 3 samples are reported as 'DNA Insufficient for Further Processing' if the sample falls into the quantitation range of 0.001 ng/µL to 0.0088 ng/µL (132 picograms) and process upon request by either the QPS or Forensic DNA Analysis staff members. Retain the DNA extract indefinitely, if no request is received.
2. Amend the current workflow: RISKS
    a) Priority 1 samples continue to be automatically concentrated prior to amplification if the sample falls into the quantitation range of 0.001ng/µL to 0.0088 ng/µL
    b) Priority 2 and Priority 3 samples are reported as 'DNA Insufficient for Further Processing' if the DNA sample falls into the quantitation range of 0.001 ng/µL to 0.0067ng/µL (100 picograms) and process upon request by either the QPS or Forensic DNA Analysis staff members. Retain the DNA extract indefinitely, if no request is received. DNA samples above 0.0067ng/µL will be processed as per routine and will not be subject to a concentration step.
    c) This amended workflow will require Forensic Register enhancement prior to use.
3. Amend the current workflow:
    a) Priority 1 samples continue to be automatically concentrated prior to amplification if the sample falls into the quantitation range of 0.001ng/µL to 0.0088 ng/µL
    b) Priority 2 samples are reported as 'DNA Insufficient for Further Processing' if the DNA sample falls into the quantitation range of either 0.001ng/µL to 0.0088ng/µL or 0.001ng/µL to 0.0067ng/µL and processed upon request. Priority 3 samples that fall into the quantitation range of either 0.001ng/µL to 0.0088 ng/µL or 0.001ng/µL to 0.0067ng/µL will be amplified without a concentration step.
    c) This amended workflow will require Forensic Register enhancement prior to use.

Cathie Allen

From: Frieberg.DaleJ[OSC] <[redacted]
Sent: Friday, 2 February 2018 3:38 PM
To: Cathie Allen; O'Malley.TroyS[OSC]; Taylor.EwenN[OSC]
Cc: Paul Csoban
Subject: RE: Options Paper for consideration

Hi Cathie and Paul,

Thank you for your time this afternoon and for discussion around this options paper. Thank you also to both Troy and Ewen with your assistance and expertise/advice around the paper.

As discussed, I am in agreement that:

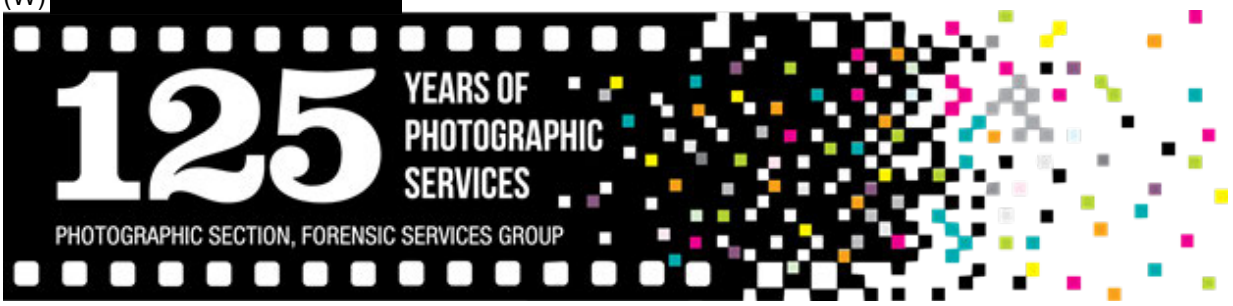
- There is clear data that it is not an efficient use of time and resources to continue with the 'auto-microcon' process for Priority 2 (*Major Crime*) samples.
- Option 2. "Cease the 'auto-microcon' process for Priority 2 casework…." Would appear to be a more productive & efficient choice.
- Scientists time and resources would be better spent working samples with a higher DNA yield and more potential.
- It would be beneficial to amend the Forensic Register to provide an automated Q-Prime update advising the Investigators of the option to request further 'Auto-microcon' processing for those samples for unsolved crime, which may prove worthwhile.
- DNA staff can request this additional processing if/when a request is received from the investigators.

I trust this is of assistance.

Kind regards,

Dale.

Dale Frieberg
Superintendent
Operations Commander
Forensic Services Group
Operations Support Command
Queensland Police Service
(E) [redacted]
(W) [redacted]



From: Cathie Allen [mailto:[redacted]
Sent: Tuesday, 30 January 2018 4:56 PM
To: Frieberg.DaleJ[OSC] <[redacted] O'Malley.TroyS[OSC] <[redacted] Taylor.EwenN[OSC] <[redacted]
Cc: Paul Csoban <[redacted]
Subject: Options Paper for consideration

Hi Dale

Please find attached an Options paper regarding concentration of major crime samples that we have prepared for your consideration. I'd like to discuss this on Friday with you.

Cheers
Cathie

Cathie Allen
Managing Scientist – Police Services Stream

Forensic & Scientific Services,
Health Support Queensland, **Department of Health**

[redacted]
a | 39 Kessels Road, Coopers Plains, QLD 4108
w | www.health.qld.gov.au e | [redacted]

HSQ's vision | Delivering the best health support services and solutions for a safer and healthier Queensland.

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and future.

From: Lara Keller
Sent: Thu, 2 Jun 2022 15:46:40 +1000
To: Shaun Drummond [redacted] Matthew Rigby
Cc: FSS Corro
Subject: FW: Documents - timeline and number of requests
Attachments: Timeline of communcations between QPS and QHFSS.docm, Requests for processing_2021 2022.docm, DNA insuff samples further processed_Sexual Offences.xlsx
Importance: High

Good afternoon All

As requested, kindly find attached:

1. Timeline re QPS and FSS engagement regarding thresholds
2. Number of requests for further concentration of samples reported as "Insufficient DNA Detected) Note: We are unable to readily identify outcomes of the requests without full case file reviews for each request. This would require a number of staff to go offline for some days as we do not have the capability via the IT platform to mine this data.
3. Cathie Allen's start of her review to challenge/confirm the findings put forward by QPS. This is a laborious case file review process as well.

Thanks and Kind Regards
Lara

Lara Keller B App Sc (MLS), Grad Cert Health Mgt, MAIMS, CMgr FIML
A/Executive Director
Forensic and Scientific Services
Prevention Division, Queensland Health
p [redacted]
a Administration, Level 1, 39 Kessels Road, Coopers Plains, QLD, 4108
e [redacted] w www.health.qld.gov.au/fss

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and emerging.

From: Cathie Allen <[redacted]
Sent: Thursday, 2 June 2022 3:14 PM
To: Lara Keller <[redacted]
Subject: Documents - timeline and number of requests
Importance: High

Hi Lara

Attached is the Timeline of communications, and a collation of the number of requests for processing of DNA Insufficient samples for 2021 and 2022.

Attached is the excel spreadsheet that I've been working on – reviewing whether the processing of a DNA insufficient gave a new DNA profile that hadn't been seen before (given we don't know how the QPS are making decisions on what to process). I haven't finished but here's what I've got so far.

Cheers
Cathie

Cathie Allen **BSc, MSc (Forensic Science) (She/Her*)**
Managing Scientist
Social Chair, Organising Committee for 25th International Symposium of the
Australian and New Zealand Forensic Science Society (ANZFSS), Brisbane, 11 – 15 Sept 2022
Police Services Stream, Forensic & Scientific Services
Prevention Division, Queensland Health
p 07 [redacted]
a 39 Kessels Road, Coopers Plains, QLD 4108
e [redacted] **w** www.health.qld.gov.au/fss

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and future.

*If you're wondering about the use of pronouns She/Her on this signature block, I encourage you to read some resources available here

Queensland Health
Forensic and Scientific Services

Timeline of contact with the QPS regarding 'DNA Insufficient' process

1st Dec 2021
Insp David Neville, Biometrics Inspector, QPS contacted Cathie Allen, Managing Scientist, FSS regarding a specific case that had some DNA Insufficient results.

3rd Dec 2021
Cathie Allen provided Insp Neville with an overview of the 'DNA Insufficient' process and that the process was authorisation by the QPS prior to implementation.

13th Dec 2021
Insp Neville advised Cathie that he had obtained a copy of the Options Paper that was provided to the QPS for authorisation.

16th Dec 2021
Cathie advised Insp Neville that FSS would review the information he provided and advise the QPS in due course.

17th Dec 2021
Insp Neville provided Cathie with a specific case example of DNA Insufficient to assist. Cathie clarified the testing process that occurs after the QPS request for the DNA Insufficient sample to proceed through testing. Insp Neville indicated that they saw the 'success rate' as higher than indicated in the Options Paper.

1st Feb 2022
QPS and FSS meeting via Teams – discussed impacts of COVID-19 being experienced by both the QPS and FSS and the two urgent cases that were requiring processing, FSS were making slow progress on the review of DNA Insufficient process due to this. This was accepted by the QPS. During the meeting, Insp Neville appreciated that they may be seeing a higher percentage of 'useful' DNA profiles as they had cherry-picked the samples to undergo testing.

16th Feb 2022
FSS devised the data to be extracted from the Forensic Register to assess the DNA Insufficient process.

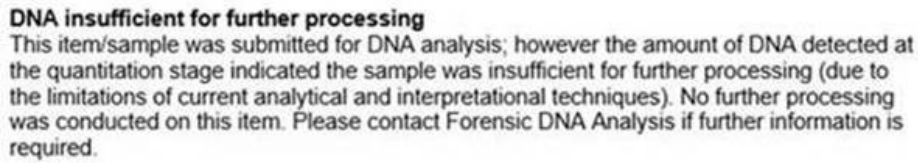
18th Feb 2022
Cathie contacted the Forensic Register Vendor to request a quote to extract data regarding DNA Insufficient samples.

21st Feb 2022
Insp Neville enquired about the progress of the review of the DNA Insufficient process.

22nd Feb 2022
Cathie advised Insp Neville that a request for the data to be extracted from the Forensic Register had been put forward to the vendor and FSS were awaiting a quote. Insp Neville clarified that the QPS were targeting particular samples rather than cherry-picking.

24th Feb 2022
Cathie advised Insp Neville that from August 2018 onwards if a sample obtains a quantitation value of 0.001 ng/uL or below, the laboratory reports this to the QPS as 'No DNA Detected'. If a sample obtains a quantitation value between 0.001ng/uL and 0.0088ng/uL, the laboratory reports this to the QPS as 'DNA insufficient for further processing' (expanded QPRIME results supplied below). Its

FSS's understanding that forensic officers review DNA results within the context of the case and can request testing or submit additional items for testing.



DNA insufficient for further processing
This item/sample was submitted for DNA analysis; however the amount of DNA detected at the quantitation stage indicated the sample was insufficient for further processing (due to the limitations of current analytical and interpretational techniques). No further processing was conducted on this item. Please contact Forensic DNA Analysis if further information is required.

Insp Neville queried further information within the Options Paper.

1st March 2022
Cathie followed up with Forensic Register Vendor regarding the request for quote for data extraction.

2nd March 2022
Forensic Register Vendor provided data extracted from the Forensic Register. This was followed up with a Teams meeting to further refine the data extract request.

3rd March 2022
Cathie advised Insp Neville that the value of 1.86% refers to DNA profiles that are able to be uploaded to the NCIDD ('loadable profile'). The more alleles available within a profile, the greater the chance that any matches could be considered a true match, rather than an adventitious match. This should be borne in mind when considering additional resources being put towards a sample with a low quant value (ie return on investment). Achieving more than 12 alleles for a sample is the aim so that matches on the NCIDD can be made and intelligence results delivered to the QPS. Cathie advised that it was anticipated to provide Supt McNab with a follow-up paper in the next two weeks.

4th March 2022
Data extract provided to FSS and FSS begin work on reviewing the data and compiling a follow-up report.

16th March 2022
Insp Neville provided feedback on some 'DNA Insufficient' samples that had progressed through testing.

17th March 2022
QPS and FSS meeting via Teams

22nd March 2022
Justin Howes, Team Leader for Reporting, Forensic DNA Analysis provided a draft follow-up report for peer review to Cathie Allen and Paula Brisotto, Team Leader for Evidence Recovery, Forensic DNA Analysis.

28th March 2022
Cathie drafted an executive summary follow-up report for the QPS.

30th March 2022
Technical reviewer assigned to review the data extraction to ensure that appropriate interpretation had been made.

1st April 2022
Insp Neville made an enquiry regarding the follow-up report.

5th April 2022
Lara Keller, A/Executive Director FSS advised Supt McNab that FSS was unable to provide the follow-up report due to legal advice.

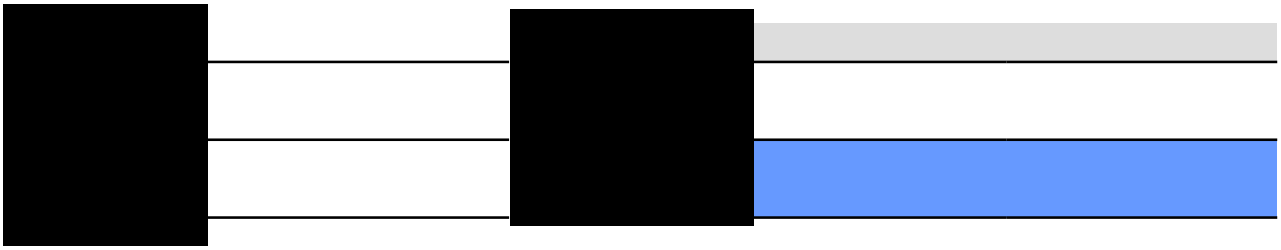
Queensland Health
Forensic and Scientific Services

QPS requests for processing on DNA Insufficient samples

Month	Number of DNA Insufficient Samples to be processed
2021	
January	6
February	12
March	10
April	6
May	5
June	3
July	5
August	6
September	5
October	11
November	5
December	1
2022	
January	3
February	2
March	11
April	59*
May	51*

*Requested by an Administration Officer within the Forensic Services Group, QPS

Barcode	New / No new DNA profiles	Case Number	QPS Request Date	QHFSS Date of Profile
[redacted]	No new DNA profiles	[redacted]	18-Jan-21	16-Dec-20
	No new DNA profiles		24-Feb-21	16-Dec-20
	No new DNA profiles		19-Feb-21	19-Feb-21
	Unsure due to limited context		19-Feb-21	22-Feb-21
	No new DNA profiles		27-Jul-21	19-Jul-21
			27-Jul-21	
			27-Jul-21	
			27-Jul-21	
	No new DNA profiles			15-Jun-21
	No new DNA profiles			
	No new DNA profiles			
	No new DNA profiles			
	No new DNA profiles			
	No new DNA profiles			



Notes

SAIK - negative for sperm; [redacted] Suspect ref DNA profile on shorts obtained, greater than 20 billion stats; [redacted] was sample from bedding

As above

Condom under the bed: [redacted] - Refs supporting contribution [redacted] (greater than 100 billion), 26 Feb 2021 - Suspect checks - low support contrib UKM1, New Ref 10 May 2021 - supports contrib [redacted] (greater than 100b); new ref 14 June 2021 - low contrib [redacted]

Condom on coffee table: [redacted] - second sample of condom requested for processing by FSS staff for Microcon, results = complex mix; [redacted] gave 3p mix with contrib from [redacted] (greater) and support for [redacted] and Complainant

[redacted] Interior of bra gave UKM1; [redacted] Clasp of Bra gave Complex mix; [redacted]

Back of dress sample gave UKM1

Dress sample

Dress sample gave UKM1

[redacted] 2 person mix from SAIK sample and underwent rework, new ref supplied; [redacted] gave single source of complainant

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---

8 Oct 2021 - [redacted] SAIK swab gave 2p mix with NCIDD upload, link provided to the QPS 13 Oct 2021; [redacted] work requested 19/10/2021 which confirmed 1 suspect, however Link identified same suspect

Work requested by QPS 19 Oct 2021, Link issued 13 Oct 2021

---

16 Feb 2022 - [redacted] gave 2 person mix from SAIK swab, this sample hadn't finished processing before QPS requested work on other SAIK swab. [redacted] - work requested 10 Feb 2022, 2 p mix obtained but no contributor to NCIDD

[redacted] - QPS requested work 10 Feb 2022

[redacted] gave SS profile which was uploaded to NCIDD, link provided to QPS 3 March 2022, [redacted] testing requested 15/02/2021

[redacted] - QPS requested 15 Feb 2022

From: Ben Armstrong
Sent: Mon, 16 May 2022 11:41:51 +1000
To: Matthew Rigby
Cc: Damon Guppy
Subject: FSS review article
Attachments: Shandee's Story_ Victim's mum lashes lab review.pdf

Hi Matt,

The attached appears to be the article in question, about the ToR. There are a handful of other articles, but not this detailed.

Damon has updated the release and is going to send to Legal shortly to facilitate review by the two independent experts.

Thanks.

Queensland Government

Ben Armstrong
Director, Media and Digital
Strategic Communications Branch, Office of the Director-General | Queensland Health

P (07) [redacted]
E [redacted]
W health.qld.gov.au

THE AUSTRALIAN

Shandee's Story: Victim's mum lashes lab review

By **CHARLIE PEEL**, JOURNALIST
9:11PM MAY 10, 2022

The mother of murder victim Shandee Blackburn and a top forensic scientist looking into her case have raised concerns about the Palaszczuk government's "flawed" review of the state's forensic laboratory.

Terms of reference for the review of the Queensland Forensic Scientific Service were announced on Tuesday by Health Minister Yvette D'Ath, who said her department was still searching for an appropriate reviewer with the necessary skill set to appoint.

It will examine evidence of disturbing failures in Queensland's government-run laboratory to -detect DNA in rape and sexual assault cases. But the internal review will not evaluate the success rates of the laboratory in extracting DNA from samples.

The apparent shortcomings of the laboratory were revealed in The Australian's Shandee's Story podcast, which investigated the 23-year-old Ms Blackburn's unsolved stabbing murder in Mackay in 2013.

"Terms of reference have been prepared in consultation with the Queensland Police Service and the CCC," Ms D'Ath said.

"The highly specialised set of skills required for this review means there is a limited national pool of potential reviewers.

"We are going through the process of appointing a reviewer, including undertaking normal due diligence."

However, top forensic biologist Kirsty Wright criticised the terms of the review and said it needed to be extended into a full commission of inquiry.

“This technical review only really goes a very small way,” Dr Wright said. “It’s not evaluating how the lab is performing, it’s just looking at what processes and procedures are in place, which is a tick-box exercise.

“Further, the language that’s used in those terms of reference is quite subjective.”

Dr Wright said the proposed review would only evaluate the methods and processes used within the Queensland Health lab without looking at the outputs or the success rate of the laboratory in providing answers to police.

She said evidence showed the lab had a poor track record of obtaining DNA from obvious - biological stains, including a victim’s own blood.

“That was one of the key issues that we picked up on in Shandee’s case,” Dr Wright said.

“While it looks like on the surface they’ve got these wonderful methods and processes, they’re not getting DNA from pools of blood and vehicles.

“So basically, this review is only looking at half the picture.”

Dr Wright said the review should also include a trend rate analysis, which she suspected would show a “nosedive” in profile success rates following the introduction of new methods in 2012.

It should also show the number of times the laboratory provided incorrect results to police, she said.

Dr Wright said the review would not get to the bottom of the issues unless the government called a full commission of inquiry.

Shandee’s mum, Vicki Blackburn, was also unhappy with the terms of reference.

“It was short of being what’s needed,” she said.

“What was specifically not in there were the success rates, which is what we’re talking about and the effect of how many cases being reported to QPS.”

State Opposition Leader David Crisafulli said the review fell “well short” of what was required.

“The government’s review will not look into one case, not one previous failing,” Mr Crisafulli said. “We’re not just talking about Shandee, we’re talking about potentially thousands of victims being denied justice. We are talking about rapists and murderers who have walked free.”

Mr Crisafulli accused Ms D’Ath and the government of trying to brush over the issue.

“The issues with forensic and scientific services are not new,” he said. “Previous reviews have shown this but the government cares more about how things look than actually doing something.”

Coroner David O’Connell wrote to Ms Blackburn in February to inform her he had decided to reopen the coronial investigation into her daughter’s death.

CHARLIE PEEL, JOURNALIST

Charlie Peel is a general news reporter based in Brisbane. He covers court, crime and politics as well as breaking news. Charlie has previously worked at The Courier-Mail, Townsville Bulletin and regional paper... Read more

More stories on this topic

- DNA lab probe ‘must have the power it needs’
- Independent probe of DNA lab ‘a must’
- Cab driver saw suspect look-alike with bandaged hand

Topics

Shandee's Story

From: Matthew Rigby
Sent: Mon, 16 May 2022 14:16:38 +1000
To: Ben Armstrong
Cc: Damon Guppy
Subject: RE: FSS review article

Thanks Ben

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

[redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Ben Armstrong <[redacted]
Sent: Monday, 16 May 2022 11:42 AM
To: Matthew Rigby <[redacted]
Cc: Damon Guppy <[redacted]
Subject: FSS review article

Hi Matt,

The attached appears to be the article in question, about the ToR. There are a handful of other articles, but not this detailed.

Damon has updated the release and is going to send to Legal shortly to facilitate review by the two independent experts.

Thanks.

Queensland Government

Ben Armstrong
Director, Media and Digital
Strategic Communications Branch, Office of the Director-General | Queensland Health

P [redacted]
E [redacted]
W health.qld.gov.au

From: Keith McNeil
Sent: Fri, 17 Jun 2022 13:52:15 +1000
To: Matthew Rigby;Jane Martin
Subject: RE: Link - Podcast

Apparently I got a guernsey!
K &#[redacted]

Prof Keith McNeil MBBS FRACP
A/Deputy Director-General, Chief Medical Officer, Chief Clinical Information Officer
Prevention Division | Queensland Health

P (07)[redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

Queensland Health acknowledges the Traditional Custodians of the land across Queensland, and pays respect to First Nations Elders past, present and future.

From: Matthew Rigby <[redacted]
Sent: Friday, 17 June 2022 8:05 AM
To: DL-ELT_Personal <[redacted] Jane Martin <[redacted]
Subject: Link - Podcast

Morning everyone,

As discussed, here is the link to the podcast.

Thanks Matt https://podcasts.apple.com/au/podcast/shandees-story/id1589336606?i=1000566605144

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Megan Fairweather
Sent: Mon, 15 Aug 2022 17:23:45 +1000
To: David Rosengren
Cc: Matthew Rigby
Subject: FW: Forensic DNA testing impacts
Attachments: Forensic DNA testing impacts

Hi David, attached is the original email with options about removing thresholds.

We now know that the option 1 content needs correcting.

Kind regards, Megan

From: Lara Keller
Sent: Fri, 3 Jun 2022 17:09:48 +1000
To: Shaun Drummond
Subject: Forensic DNA testing impacts

Good afternoon Shaun

Kindly find below two options for the term-of-review process. Please note that these figures are estimates only.

Option 1 – Process Only (Preferred)
Revert to pre 2018 workflow – which is where all samples above a quant value of 0 are **processed through** to DNA profiling. Samples that are identified as being beneficial for concentration can be based on the DNA profile achieved, item criticality and case context.
Will increase TAT to report, plus generate approx. 6 weeks backlog per 6 months
Estimated cost of kits plus IT = $60K
Overtime likely

Option 2 – Concentrate and Process (Least Preferred)
Discontinue 2018 workflow and **concentrate** all samples with a quant value between 0 and 0.0088ng/uL and then **process through** to DNA profiling stage.
Risks:

1. concentration step creates a risk of there being no DNA sample available for testing by other technologies not undertaken in Queensland, future technologies or testing requested by Defence.
2. in previous discussions, the QPS did not support an automatic concentration process, as the sample hadn't been assessed in the context of the case and may leave no sample remaining for future testing.
3. concentration step is a manual process so will impact labour and TAT

Will increase TAT to report, plus generate approx. 3 months backlog per 6 months
Estimated cost of kits plus IT = $80K
Overtime likely

To address subsequent backlog will require 5+ HP3 staff, noting that achieving minimum competency takes 3 months, full competency takes 12 months.

Thanks and Kind Regards
Lara

Lara Keller B App Sc (MLS), Grad Cert Health Mgt, MAIMS, CMgr FIML
A/Executive Director
Forensic and Scientific Services
Prevention Division, Queensland Health
[redacted]
a Administration, Level 1, 39 Kessels Road, Coopers Plains, QLD, 4108
[redacted] **w** **www.health.qld.gov.au/fss**

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and emerging.

From: Megan Fairweather
Sent: Wed, 17 Aug 2022 17:29:59 +1000
To: Matthew Rigby
Subject: A/DG draft memo for FSS microcon requirements
Attachments: Extract 19.4 from SOP 17117V19.pdf, DG Memo - Required amendment to FSS SOP 17117V19 - 17 August 2022.docx

Hi Matt

A draft memo with content approved by Helen, Cathie and reviewed by Glen Rice QC is attached for yours and David's consideration.

I will leave to you to polish up, and to let me know any changes (and who you think should be the memo contact).

Kind regards, Megan

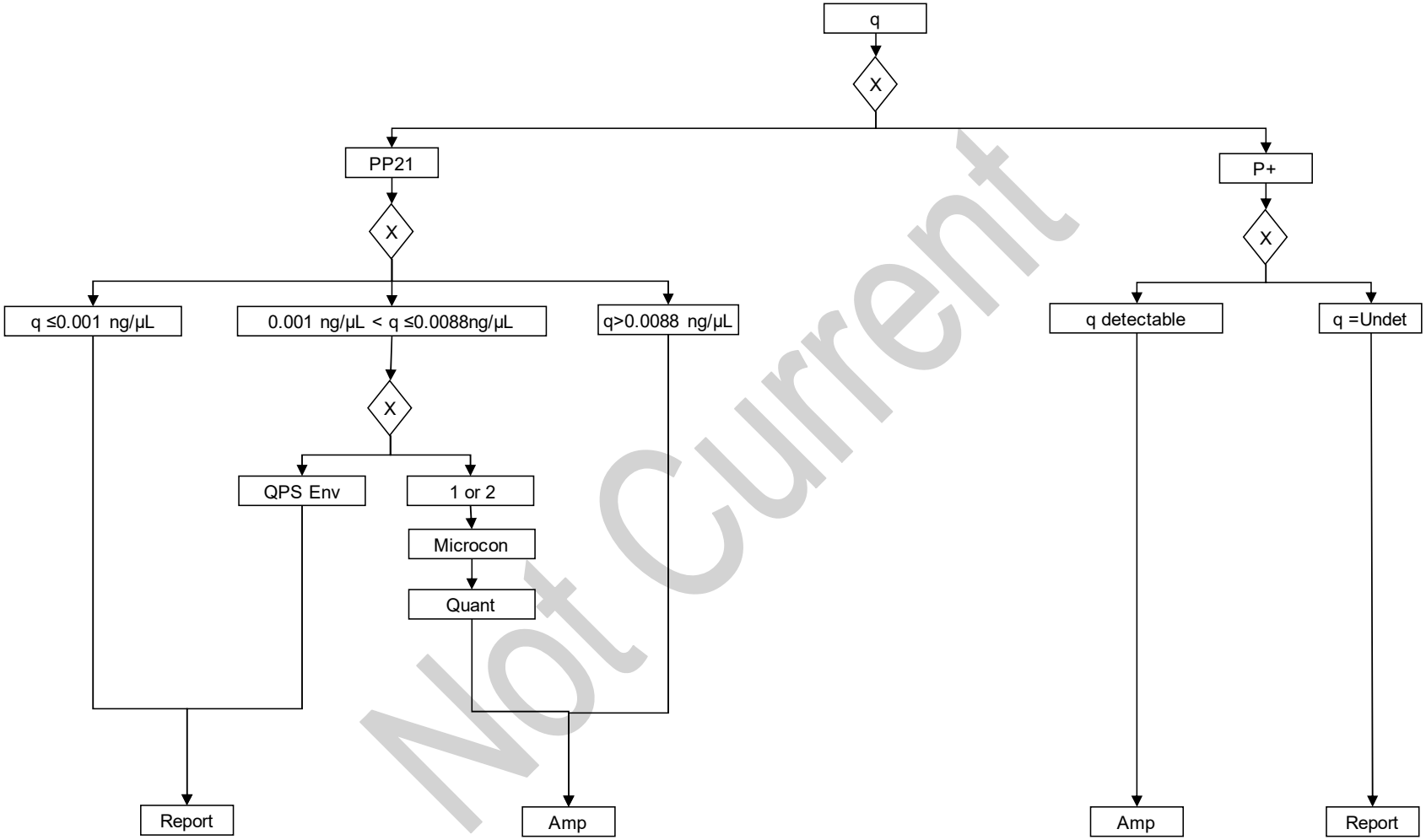
Queensland Government

Megan Fairweather
A/Chief Legal Counsel
Legal Branch | Corporate Services
Division | Queensland Health

P 07 [redacted]
E [redacted]
W health.qld.gov.au
A Level 6, 33 Charlotte Street, Brisbane 4000

Queensland Health acknowledges the Traditional Custodians of the land across Queensland, and pays respect to First Nations Elders past, present and future.

19.4 Quantification workflow



Department of Health

Queensland Government

MEMORANDUM

To:	Helen Gregg, A/Executive Director, Forensic and Scientific Services		
Copies to:	Prof Keith McNeil, Deputy Director-General and Chief Medical Officer, Prevention Division and Chief Clinical Information		
From:	David Rosengren, Acting Director-General	**Enquiries to:**	## 07 ##
Subject:	*Reversion to concentration of all Priority 2 samples in range*		

Following the announcement of the DNA Commission of Inquiry, on 6 June 2022, the A/DG Shaun Drummond made a decision about the workflow relating to samples reported as '*DNA insufficient for further processing*'. This related to Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.

The A/DG's decision contemplated an option for testing that would allow a discretion for FSS Forensic DNA Analysis scientists, including in conjunction with investigating officers at QPS, to decide the merits of undertaking a concentration process for Priority 2 samples within this quantitation range, having regard to other available case information.

I appreciate that there may be justifiable scientific grounds for the discretionary option, including a real risk of the concentration process reducing sample quantity if it is not considered by the scientist or QPS to be beneficial. That is because reducing the sample quantity has the potential to impact future testing if requested by QPS or Defence, and could limit opportunities for results when improved processes are introduced in future. I expect this issue will be explored in detail by the DNA Commission of Inquiry.

I have reflected about options for the concentration process and for certainty pending the outcome of the DNA Commission of Inquiry, I request the workflow to revert to the concentration process for Priority 1 and Priority 2 samples stipulated in Standard Operating Procedure 17117V19 (diagram section 19.4) (**attached**). That is, the concentration process is to be undertaken automatically for all Priority 1 and Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.

I ask that a review of the laboratory information system be undertaken to identify any sample results within this quantitation range from 6 June 2022 to today's date inclusive. Any such samples are now to be subjected to the concentration process, if not already undertaken.

*I confirm that this request was approved in advance by QPS [***A/DG has approached QPS, waiting for response***].

Please share this memorandum with the Forensic DNA Analysis Unit staff.

Should you require further information, the Department of Health's contact is ## on telephone 07 ##.

David Rosengren
Acting Director-General
/ /

Prepared by:	Megan Fairweather Acting Chief Legal Counsel Legal Branch 17 August 2022
Cleared by:	Matt Rigby Executive Director Office of the Director-General 5 August 2022

From: Matthew Rigby
Sent: Wed, 17 Aug 2022 17:53:08 +1000
To: David Rosengren
Subject: Fwd: A/DG draft memo for FSS microcon requirements
Attachments: Extract 19.4 from SOP 17117V19.pdf, DG Memo - Required amendment to FSS SOP 17117V19 - 17 August 2022.docx

Hi David, as discussed see attached for your consideration. I would suggest removing the highlighted sentence before I sent to QPS for their consultation and feedback this evening.
Thanks Matt
Get Outlook for iOS
From: Megan Fairweather <[redacted]
Sent: Wednesday, August 17, 2022 5:29:59 PM
To: Matthew Rigby <[redacted]
Subject: A/DG draft memo for FSS microcon requirements

Hi Matt

A draft memo with content approved by Helen, Cathie and reviewed by Glen Rice QC is attached for yours and David's consideration.

I will leave to you to polish up, and to let me know any changes (and who you think should be the memo contact).

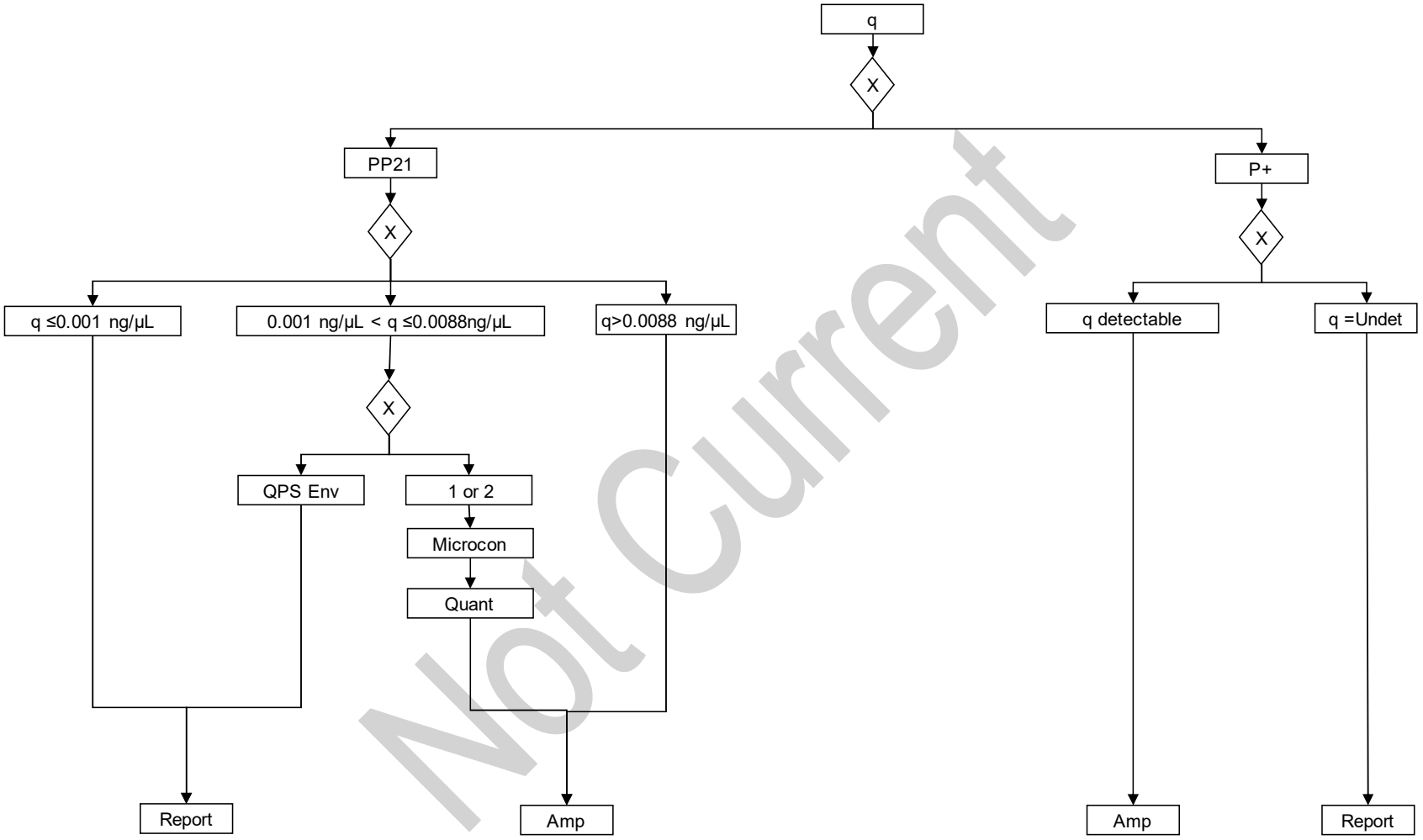
Kind regards, Megan

Queensland Government

Megan Fairweather
A/Chief Legal Counsel
Legal Branch | Corporate Services Division | Queensland Health

P [redacted]
E [redacted]
W health.qld.gov.au
A Level 6, 33 Charlotte Street, Brisbane 4000

19.4 Quantification workflow



Department of Health

Queensland Government

MEMORANDUM

To:	Helen Gregg, A/Executive Director, Forensic and Scientific Services		
Copies to:	Prof Keith McNeil, Deputy Director-General and Chief Medical Officer, Prevention Division and Chief Clinical Information		
From:	David Rosengren, Acting Director-General	**Enquiries to:**	## 07 ##
Subject:	*Reversion to concentration of all Priority 2 samples in range*		

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The A/DG's decision contemplated an option for testing that would allow a discretion for FSS Forensic DNA Analysis scientists, including in conjunction with investigating officers at QPS, to decide the merits of undertaking a concentration process for Priority 2 samples within this quantitation range, having regard to other available case information.

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I have reflected about options for the concentration process and for certainty pending the outcome of the DNA Commission of Inquiry, I request the workflow to revert to the concentration process for Priority 1 and Priority 2 samples stipulated in Standard Operating Procedure 17117V19 (diagram section 19.4) (**attached**). That is, the concentration process is to be undertaken automatically for all Priority 1 and Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.

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*I confirm that this request was approved in advance by QPS [***A/DG has approached QPS, waiting for response***].

Please share this memorandum with the Forensic DNA Analysis Unit staff.

Should you require further information, the Department of Health's contact is ## on telephone 07 ##.

David Rosengren
Acting Director-General
/ /

Prepared by:	Megan Fairweather Acting Chief Legal Counsel Legal Branch 17 August 2022
Cleared by:	Matt Rigby Executive Director Office of the Director-General 5 August 2022

From: Matthew Rigby
Sent: Wed, 17 Aug 2022 19:08:37 +1000
To: [redacted]
Cc: David Rosengren
Subject: FSS SOP draft memo
Attachments: Extract 19.4 from SOP 17117V19.pdf, DG Memo - Required amendment to FSS SOP 17117V19 - 17 August 2022.docx

Hi Dave,

Thanks for your time today and as discussed with the Acting DG and myself this afternoon, please find attached a draft memo that has been prepared and the associated SOP extract to provide some further clarity to our staff at FSS.

Appreciate any feedback/input that you have from a QPS perspective.

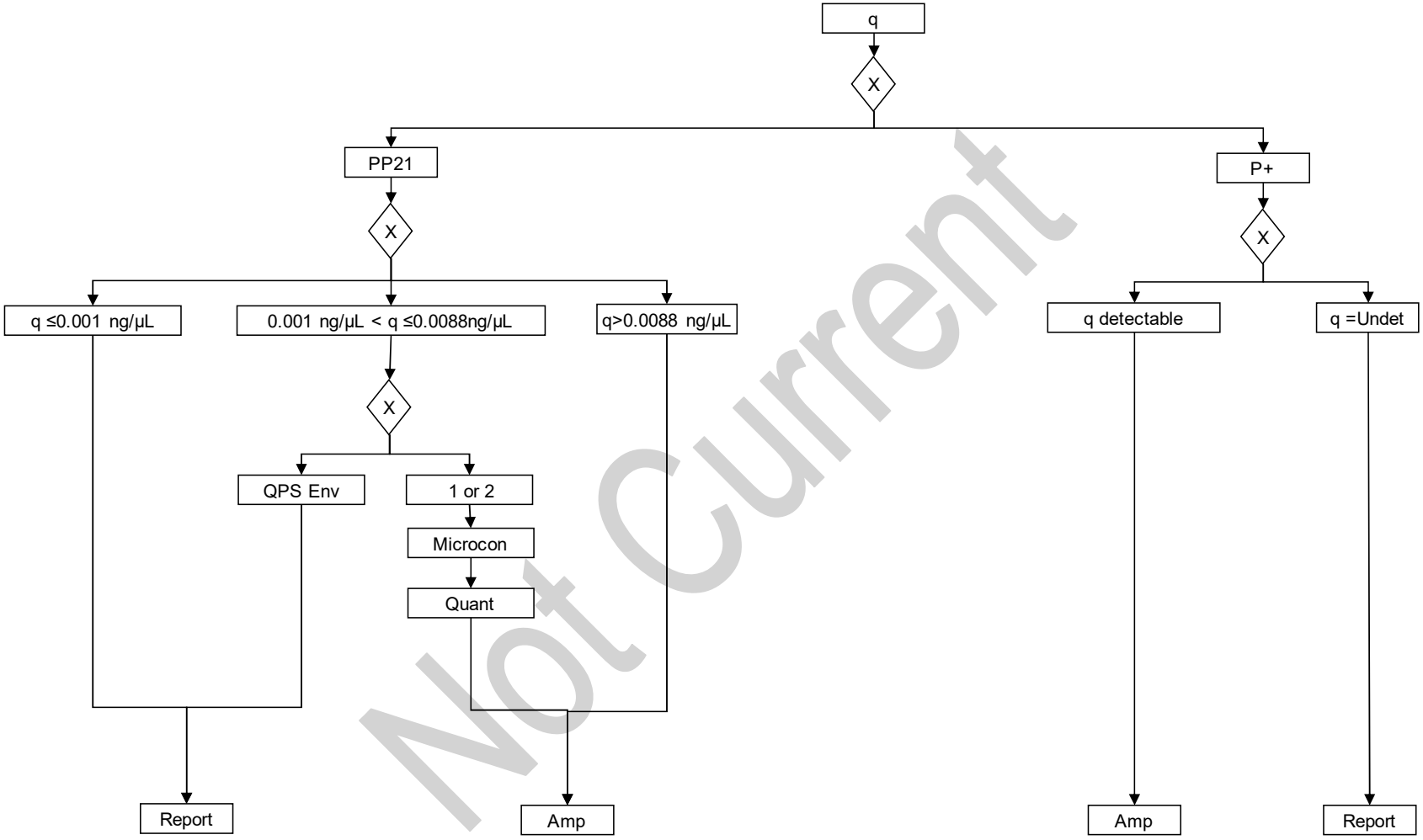
Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

19.4 Quantification workflow



Department of Health

Queensland Government

MEMORANDUM

To:	Helen Gregg, A/Executive Director, Forensic and Scientific Services		
Copies to:	Prof Keith McNeil, Deputy Director-General and Chief Medical Officer, Prevention Division and Chief Clinical Information		
From:	David Rosengren, Acting Director-General	**Enquiries to:**	## 07 ##
Subject:	*Reversion to concentration of all Priority 2 samples in range*		

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I have reflected about options for the concentration process and for certainty pending the outcome of the DNA Commission of Inquiry, I request the workflow to revert to the concentration process for Priority 1 and Priority 2 samples stipulated in Standard Operating Procedure 17117V19 (diagram section 19.4) (**attached**). That is, the concentration process is to be undertaken automatically for all Priority 1 and Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.

I ask that a review of the laboratory information system be undertaken to identify any sample results within this quantitation range from 6 June 2022 to today's date inclusive. Any such samples are now to be subjected to the concentration process, if not already undertaken.

Statement confirming consultation with QPS – once feedback provided

I request that you ensure this memorandum is shared with the Forensic DNA Analysis Unit staff and ensure clarity with the approach outlined above.

Should you require further information, the Department of Health's contact is ## on telephone 07 ##.

David Rosengren
Acting Director-General
/ /

Prepared by:	Megan Fairweather Acting Chief Legal Counsel Legal Branch 17 August 2022
Cleared by:	Matt Rigby Executive Director Office of the Director-General 5 August 2022

From: Neville.DavidH[OSC]
Sent: Thu, 18 Aug 2022 13:59:55 +1000
To: Matthew Rigby
Subject: RE: FSS SOP draft memo

Hi Matt
I am in the process of consulting within. I hope to get back to you this afternoon or tomorrow morning.

David Neville
Inspector
Biometrics
Forensic Services Group
Operations Support Command
[redacted]

From: Matthew Rigby <[redacted]
Sent: Wednesday, 17 August 2022 19:09
To: Neville.DavidH[OSC] <[redacted]
Cc: David Rosengren <[redacted]
Subject: FSS SOP draft memo

Hi Dave,

Thanks for your time today and as discussed with the Acting DG and myself this afternoon, please find attached a draft memo that has been prepared and the associated SOP extract to provide some further clarity to our staff at FSS.

Appreciate any feedback/input that you have from a QPS perspective.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

****

****

From: Matthew Rigby
Sent: Thu, 18 Aug 2022 14:03:30 +1000
To: Neville.DavidH
Subject: Re: FSS SOP draft memo

Thanks for the update Dave.
Thanks Matt
Get Outlook for iOS
From: Neville.DavidH[OSC] <[redacted]
Sent: Thursday, August 18, 2022 1:59:55 PM
To: Matthew Rigby <[redacted]
Subject: RE: FSS SOP draft memo

This email originated from outside Queensland Health. DO NOT click on any links or open attachments unless you recognise the sender and know the content is safe.

Hi Matt
I am in the process of consulting within. I hope to get back to you this afternoon or tomorrow morning.

David Neville
Inspector
Biometrics
Forensic Services Group
Operations Support Command
[redacted]

From: Matthew Rigby <[redacted]
Sent: Wednesday, 17 August 2022 19:09
To: Neville.DavidH[OSC] <[redacted]
Cc: David Rosengren <[redacted]
Subject: FSS SOP draft memo

CAUTION: This email originated from outside of Queensland Police Service. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi Dave,

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Appreciate any feedback/input that you have from a QPS perspective.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Matthew Rigby
Sent: Fri, 19 Aug 2022 09:28:47 +1000
To: David Rosengren;Megan Fairweather
Subject: FW: FSS SOP draft memo
Attachments: Extract 19.4 from SOP 17117V19.pdf, DG Memo - Required amendment to FSS SOP 17117V19 - 17 August 2022.docx

Hi David and Megan,

Please see the below email that I received back from Inspector Dave Neville from QPS in relation to the draft memo that was provided for their feedback/input.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

[redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Neville.DavidH[OSC] <[redacted]
Sent: Friday, 19 August 2022 9:22 AM
To: Matthew Rigby <[redacted]
Cc: McCarthy.DuncanJ[OSC] <[redacted]
Subject: FW: FSS SOP draft memo

Hi Matt

Thank you for the opportunity to comment on the proposed change to the laboratory workflow involving automatic micro-concentration of samples in the concentration range of .001-.0088ng/uL.

The QPS agreed to the removal of this process in February 2018 following a recommendation that was initiated by the DNA laboratory and presented in an Options Paper. The QPS now has some concern about the information it was provided to make this decision including the manner in which the supporting data was derived.

In November 2018 the QPS first raised concern with the Managing Scientist that the removal of the automatic micro-concentration process may have resulted in evidence being missed. At that time the QPS was given an assurance that the success of micro-concentration was very low and that 'automatic progression of samples through the Microcon process means that all available DNA

extract will be consumed, so no further testing can be conducted on these samples after this step'. Based on this advice, the QPS continued with the arrangement.

Due to limitations of the QHFSS DNA laboratory, from time to time the QPS seeks the services of other providers to undertake alternative testing, particularly for low concentration and degraded samples. If the advice from the Managing Scientist is correct, the automatic concentration of all samples in the range of .001-.0088ng/uL could result in the opportunity being lost to use another service provider to obtain important probative evidence. This is a consequence that the QPS is unable to accept as a matter of routine.

The risk is that the proposed directive may result in a sample being exhausted making alternative testing impossible. The QPS does not have the expertise to assess the likelihood of the risk given such an assessment can only be made based on information that is exclusively within the domain of QHFSS. As a result, the QPS considers the decision to reimplement automatic micro-concentration an internal matter that QH must decide in the context that the customer (the QPS) desires to maximise the potential to obtain a profile from every sample, whether that be by services delivered by QHFSS or by another provider that can deliver a service QHFSS is not resourced to deliver.

Regards

David Neville
Inspector
Biometrics
Forensic Services Group
Operations Support Command
[redacted]

From: Matthew Rigby <[redacted]
Sent: Wednesday, August 17, 2022 7:10 pm
To: Neville.DavidH[OSC] <[redacted]
Cc: David Rosengren <[redacted]
Subject: FSS SOP draft memo

Hi Dave,

Thanks for your time today and as discussed with the Acting DG and myself this afternoon, please find attached a draft memo that has been prepared and the associated SOP extract to provide some further clarity to our staff at FSS.

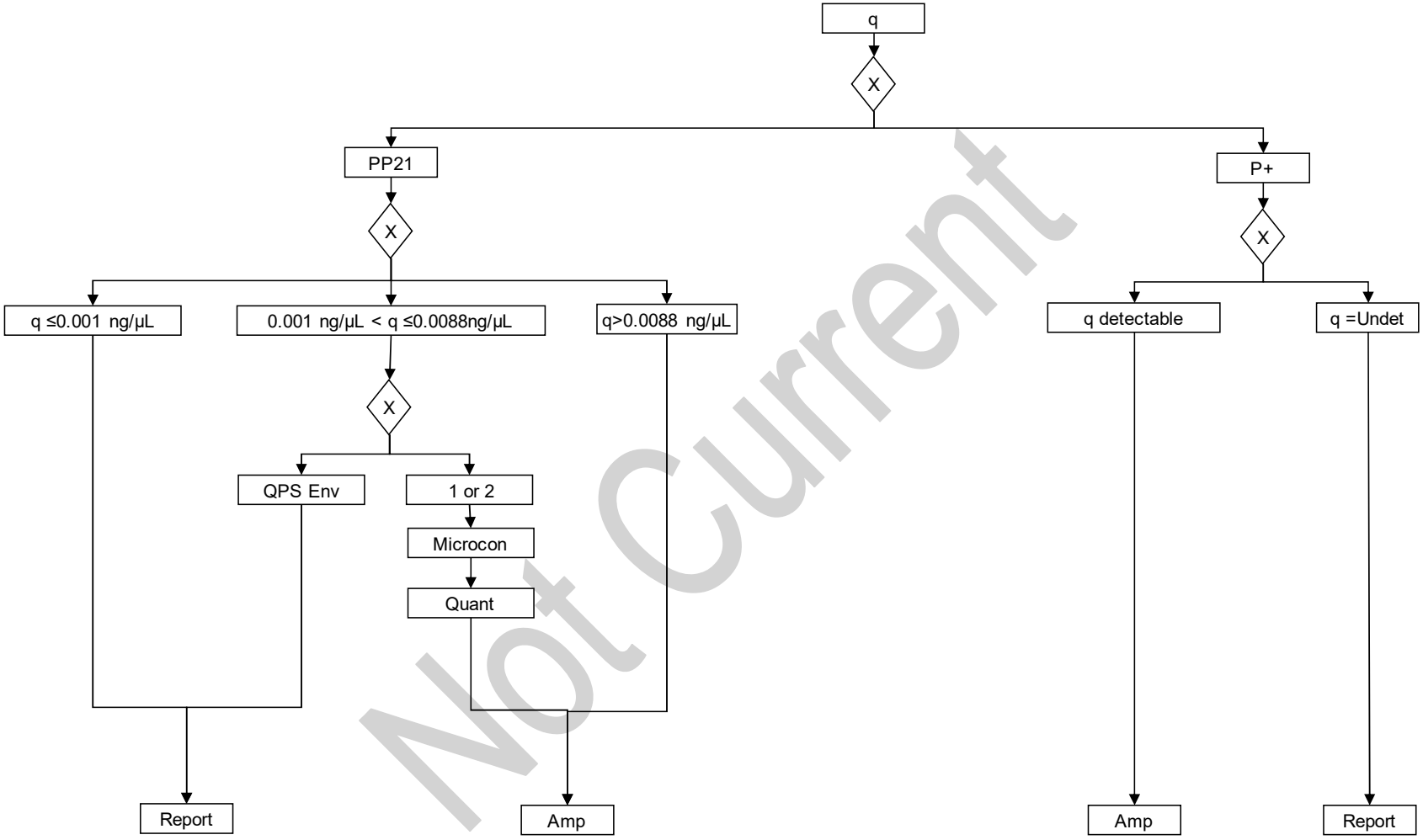
Appreciate any feedback/input that you have from a QPS perspective.

Thanks Matt

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

19.4 Quantification workflow



Department of Health

Queensland Government

MEMORANDUM

To:	Helen Gregg, A/Executive Director, Forensic and Scientific Services		
Copies to:	Prof Keith McNeil, Deputy Director-General and Chief Medical Officer, Prevention Division and Chief Clinical Information		
From:	David Rosengren, Acting Director-General	**Enquiries to:**	## 07 ##
Subject:	*Reversion to concentration of all Priority 2 samples in range*		

Following the announcement of the DNA Commission of Inquiry, on 6 June 2022, the A/DG Shaun Drummond made a decision about the workflow relating to samples reported as '*DNA insufficient for further processing*'. This related to Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.

The A/DG's decision contemplated an option for testing that would allow a discretion for FSS Forensic DNA Analysis scientists, including in conjunction with investigating officers at QPS, to decide the merits of undertaking a concentration process for Priority 2 samples within this quantitation range, having regard to other available case information.

I appreciate that there may be grounds for the discretionary option, including a risk of the concentration process reducing residual sample quantity if it is not considered by the scientist or QPS to be beneficial. That is because reducing the sample quantity has the potential to impact future testing if requested by QPS or Defence, and could limit opportunities for results when improved processes are introduced in future. I expect this issue will be explored in detail by the DNA Commission of Inquiry.

I have reflected about options for the concentration process and for certainty pending the outcome of the DNA Commission of Inquiry, I request the workflow to revert to the concentration process for Priority 1 and Priority 2 samples stipulated in Standard Operating Procedure 17117V19 (diagram section 19.4) (**attached**). That is, the concentration process is to be undertaken automatically for all Priority 1 and Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.

I ask that a review of the laboratory information system be undertaken to identify any sample results within this quantitation range from 6 June 2022 to today's date inclusive. Any such samples are now to be subjected to the concentration process, if not already undertaken.

Statement confirming consultation with QPS – once feedback provided

I request that you ensure this memorandum is shared with the Forensic DNA Analysis Unit staff and ensure clarity with the approach outlined above.

Should you require further information, the Department of Health's contact is ## on telephone 07 ##.

David Rosengren
Acting Director-General
/ /

Prepared by:	Megan Fairweather Acting Chief Legal Counsel Legal Branch 17 August 2022
Cleared by:	Matt Rigby Executive Director Office of the Director-General 5 August 2022

From: Matthew Rigby
Sent: Fri, 19 Aug 2022 11:16:04 +1000
To: Megan Fairweather;Helen Gregg
Subject: Updated memo for consideration
Attachments: DG Memo - Required amendment to FSS SOP 17117V19 - 19 August 2022 updated DR.docx

Hi Megan and Helen,

Can I please seek your feedback on this updated memo. Once you are comfortable with the content, I will seek David's final approval and arrange for this to be issued from DG Corro.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

Department of Health

Queensland Government

MEMORANDUM

To: Helen Gregg, A/Executive Director, Forensic and Scientific Services

Copies to: Prof Keith McNeil, Deputy Director-General and Chief Medical Officer, Prevention Division and Chief Clinical Information

From: David Rosengren, Acting Director-General

Enquiries to: ##

07 ##

Subject: *Reversion to concentration of all Priority 2 samples in range*

Following the announcement of the DNA Commission of Inquiry, on 6 June 2022, advice was sought on the workflow relating to samples reported as '*DNA insufficient for further processing'*. This related to Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.

Consideration has included an option for testing that would allow a discretion for FSS Forensic DNA Analysis scientists, including in conjunction with investigating officers at QPS, to decide the merits of undertaking a concentration process for Priority 2 samples within this quantitation range, having regard to other available case information.

I appreciate a risk of the concentration process reducing residual sample quantity and the potential unavailability for additional testing if improved processes are introduced in future.

I have reflected about options for the concentration process and for certainty pending the outcome of the DNA Commission of Inquiry, I request the workflow to revert to the concentration process for Priority 1 and Priority 2 samples stipulated in Standard Operating Procedure 17117V19 (diagram section 19.4 attached). **That is, the concentration process is to be undertaken automatically for <u>all</u> Priority 1 and Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.**

I ask that a review of the laboratory information system be undertaken to identify any sample results within this quantitation range from 6 June 2022 to today's date inclusive. Any such samples are now to be subjected to the concentration process, if not already undertaken.

Consultation has been undertaken with Queensland Police Service on this advice.

I request that you ensure this memorandum is shared with the Forensic DNA Analysis Unit staff and ensure clarity with the approach outlined above.

Should you require further information, the Department of Health's contact is Prof Keith McNeil, Deputy Director-General on telephone 07 3708 5344.

David Rosengren
Acting Director-General
/ /

Prepared by:	Megan Fairweather Acting Chief Legal Counsel Legal Branch 17 August 2022
Cleared by:	Matt Rigby Executive Director Office of the Director-General 5 August 2022

From: Megan Fairweather
Sent: Fri, 19 Aug 2022 12:51:22 +1000
To: Matthew Rigby;Helen Gregg
Subject: RE: Updated memo for consideration

Hi Matt and Helen

In speaking to the lab scientists this morning, I understand a plan is in place to include a consultation step with QPS to discuss any risk of sample exhaustion or reduction, essentially case by case, or in groups of cases (if able to be described). While those details are being refined operationally, do you see any reason why the A/DG should not send his memo to give effect to his decision now?

Kind regards, Megan

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 11:16 AM
To: Megan Fairweather <[redacted] Helen Gregg <[redacted]
Subject: Updated memo for consideration

Hi Megan and Helen,

Can I please seek your feedback on this updated memo. Once you are comfortable with the content, I will seek David's final approval and arrange for this to be issued from DG Corro.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Helen Gregg
Sent: Fri, 19 Aug 2022 12:59:53 +1000
To: Megan Fairweather;Matthew Rigby
Subject: RE: Updated memo for consideration
Importance: High

HI Megan and Matt,

The wording I would like to send out with the memo (unchanged) is;

Background:
Our current processes are that after concentration, the remaining sample is approximately 35uL which is enough volume for one quantitation and two amplifications in-house. Conducting a second amplification will exhaust the sample and there will be no remaining sample available for further testing by anther organisation in the future.

The risk associated with undertaking a second amplification needs QPS involvement.

Therefore; our processes from now on will be;
1. Concentrate to a volume of 35uL and perform one amplification.
2. If the scientist determines there may be benefit in performing a further amplification (therefore exhausting the concentrated sample), QPS written approval must be gained before the second amplification commences.

This will become a change to our SOP

Regards
Helen

From: Megan Fairweather <[redacted]
Sent: Friday, 19 August 2022 12:51 PM
To: Matthew Rigby <[redacted] Helen Gregg <[redacted]
Subject: RE: Updated memo for consideration

Hi Matt and Helen

In speaking to the lab scientists this morning, I understand a plan is in place to include a consultation step with QPS to discuss any risk of sample exhaustion or reduction, essentially case by case, or in groups of cases (if able to be described). While those details are being refined operationally, do you see any reason why the A/DG should not send his memo to give effect to his decision now?

Kind regards, Megan

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 11:16 AM

To: Megan Fairweather <[redacted] Helen Gregg <[redacted]
Subject: Updated memo for consideration

Hi Megan and Helen,

Can I please seek your feedback on this updated memo. Once you are comfortable with the content, I will seek David's final approval and arrange for this to be issued from DG Corro.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Megan Fairweather
Sent: Fri, 19 Aug 2022 13:02:49 +1000
To: Helen Gregg;Matthew Rigby
Subject: RE: Updated memo for consideration

Matt, the memo just needs a contact person included in the table (top of page 1).

From: Helen Gregg <[redacted]
Sent: Friday, 19 August 2022 1:00 PM
To: Megan Fairweather <[redacted] Matthew Rigby <[redacted]
Subject: RE: Updated memo for consideration
Importance: High

HI Megan and Matt,

The wording I would like to send out with the memo (unchanged) is;

Background:
Our current processes are that after concentration, the remaining sample is approximately 35uL which is enough volume for one quantitation and two amplifications in-house. Conducting a second amplification will exhaust the sample and there will be no remaining sample available for further testing by anther organisation in the future.

The risk associated with undertaking a second amplification needs QPS involvement.

Therefore; our processes from now on will be;
1. Concentrate to a volume of 35uL and perform one amplification.
2. If the scientist determines there may be benefit in performing a further amplification (therefore exhausting the concentrated sample), QPS written approval must be gained before the second amplification commences.

This will become a change to our SOP

Regards
Helen

From: Megan Fairweather <[redacted]
Sent: Friday, 19 August 2022 12:51 PM
To: Matthew Rigby <[redacted] Helen Gregg <[redacted]
Subject: RE: Updated memo for consideration

Hi Matt and Helen

In speaking to the lab scientists this morning, I understand a plan is in place to include a consultation step with QPS to discuss any risk of sample exhaustion or reduction, essentially case by case, or in groups of cases (if able to be described). While those details are being refined operationally, do you see any reason why the A/DG should not send his memo to give effect to his decision now?

Kind regards, Megan

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 11:16 AM
To: Megan Fairweather <[redacted] Helen Gregg <[redacted]
Subject: Updated memo for consideration

Hi Megan and Helen,

Can I please seek your feedback on this updated memo. Once you are comfortable with the content, I will seek David's final approval and arrange for this to be issued from DG Corro.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Helen Gregg
Sent: Fri, 19 Aug 2022 13:37:11 +1000
To: Megan Fairweather;Matthew Rigby
Subject: RE: Updated memo for consideration
Importance: High

HI Megan,

Just noticed you stated 'a consultation step with QPS to discuss any risk of sample exhaustion or reduction' please note – concentration is reduction, so it is only a risk of exhaustion that we are trying to mitigate. We 'reduce' when we do the first conc/amp

Regards
Helen

From: Helen Gregg
Sent: Friday, 19 August 2022 1:00 PM
To: Megan Fairweather <[redacted] Matthew Rigby <[redacted]
Subject: RE: Updated memo for consideration
Importance: High

HI Megan and Matt,

The wording I would like to send out with the memo (unchanged) is;

Background:
Our current processes are that after concentration, the remaining sample is approximately 35uL which is enough volume for one quantitation and two amplifications in-house. Conducting a second amplification will exhaust the sample and there will be no remaining sample available for further testing by anther organisation in the future.

The risk associated with undertaking a second amplification needs QPS involvement.

Therefore; our processes from now on will be;
1. Concentrate to a volume of 35uL and perform one amplification.
2. If the scientist determines there may be benefit in performing a further amplification (therefore exhausting the concentrated sample), QPS written approval must be gained before the second amplification commences.

This will become a change to our SOP

Regards
Helen

From: Megan Fairweather <[redacted]
Sent: Friday, 19 August 2022 12:51 PM
To: Matthew Rigby <[redacted] Helen Gregg <[redacted]
Subject: RE: Updated memo for consideration

Hi Matt and Helen

In speaking to the lab scientists this morning, I understand a plan is in place to include a consultation step with QPS to discuss any risk of sample exhaustion or reduction, essentially case by case, or in groups of cases (if able to be described). While those details are being refined operationally, do you see any reason why the A/DG should not send his memo to give effect to his decision now?

Kind regards, Megan

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 11:16 AM
To: Megan Fairweather <[redacted] Helen Gregg <[redacted]
Subject: Updated memo for consideration

Hi Megan and Helen,

Can I please seek your feedback on this updated memo. Once you are comfortable with the content, I will seek David's final approval and arrange for this to be issued from DG Corro.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Matthew Rigby
Sent: Fri, 19 Aug 2022 13:47:18 +1000
To: David Rosengren
Cc: Megan Fairweather;Helen Gregg
Subject: FW: Updated memo for consideration
Attachments: DG Memo - Required amendment to FSS SOP 17117V19 - 19 August 2022 updated DR.docx

Hi David,

Please see attached and the advice below from Helen to supplement the memo (attached) for your approval.

Contact details in the memo will be finalised in DG corro prior to any distribution of the memo.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Megan Fairweather <[redacted]
Sent: Friday, 19 August 2022 1:03 PM
To: Helen Gregg <[redacted] Matthew Rigby <[redacted]
Subject: RE: Updated memo for consideration

Matt, the memo just needs a contact person included in the table (top of page 1).

From: Helen Gregg <[redacted]
Sent: Friday, 19 August 2022 1:00 PM
To: Megan Fairweather <[redacted] Matthew Rigby <[redacted]
Subject: RE: Updated memo for consideration
Importance: High

HI Megan and Matt,

The wording I would like to send out with the memo (unchanged) is;

Background:

Our current processes are that after concentration, the remaining sample is approximately 35uL which is enough volume for one quantitation and two amplifications in-house. Conducting a second amplification will exhaust the sample and there will be no remaining sample available for further testing by anther organisation in the future.

The risk associated with undertaking a second amplification needs QPS involvement.

Therefore; our processes from now on will be;

1. Concentrate to a volume of 35uL and perform one amplification.
2. If the scientist determines there may be benefit in performing a further amplification (therefore exhausting the concentrated sample), QPS written approval must be gained before the second amplification commences.

This will become a change to our SOP

Regards
Helen

From: Megan Fairweather <[redacted]
Sent: Friday, 19 August 2022 12:51 PM
To: Matthew Rigby <[redacted] Helen Gregg <[redacted]
Subject: RE: Updated memo for consideration

Hi Matt and Helen

In speaking to the lab scientists this morning, I understand a plan is in place to include a consultation step with QPS to discuss any risk of sample exhaustion or reduction, essentially case by case, or in groups of cases (if able to be described). While those details are being refined operationally, do you see any reason why the A/DG should not send his memo to give effect to his decision now?

Kind regards, Megan

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 11:16 AM
To: Megan Fairweather <[redacted] Helen Gregg <[redacted]
Subject: Updated memo for consideration

Hi Megan and Helen,

Can I please seek your feedback on this updated memo. Once you are comfortable with the content, I will seek David's final approval and arrange for this to be issued from DG Corro.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

Department of Health

Queensland Government

MEMORANDUM

To:	Helen Gregg, A/Executive Director, Forensic and Scientific Services		
Copies to:	Prof Keith McNeil, Deputy Director-General and Chief Medical Officer, Prevention Division and Chief Clinical Information		
From:	David Rosengren, Acting Director-General	**Enquiries to:**	## 07 ##
Subject:	*Reversion to concentration of all Priority 2 samples in range*		

Following the announcement of the DNA Commission of Inquiry, on 6 June 2022, advice was sought on the workflow relating to samples reported as '*DNA insufficient for further processing'*. This related to Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.

Consideration has included an option for testing that would allow a discretion for FSS Forensic DNA Analysis scientists, including in conjunction with investigating officers at QPS, to decide the merits of undertaking a concentration process for Priority 2 samples within this quantitation range, having regard to other available case information.

I appreciate a risk of the concentration process reducing residual sample quantity and the potential unavailability for additional testing if improved processes are introduced in future.

I have reflected about options for the concentration process and for certainty pending the outcome of the DNA Commission of Inquiry, I request the workflow to revert to the concentration process for Priority 1 and Priority 2 samples stipulated in Standard Operating Procedure 17117V19 (diagram section 19.4 attached). **That is, the concentration process is to be undertaken automatically for <u>all</u> Priority 1 and Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.**

I ask that a review of the laboratory information system be undertaken to identify any sample results within this quantitation range from 6 June 2022 to today's date inclusive. Any such samples are now to be subjected to the concentration process, if not already undertaken.

Consultation has been undertaken with Queensland Police Service on this advice.

I request that you ensure this memorandum is shared with the Forensic DNA Analysis Unit staff and ensure clarity with the approach outlined above.

Should you require further information, the Department of Health's contact is Prof Keith McNeil, Deputy Director-General on telephone 07 3708 5344.

David Rosengren
Acting Director-General
/ /

Prepared by:	Megan Fairweather Acting Chief Legal Counsel Legal Branch 17 August 2022
Cleared by:	Matt Rigby Executive Director Office of the Director-General 5 August 2022

From: Matthew Rigby
Sent: Fri, 19 Aug 2022 14:17:11 +1000
To: Helen Gregg;Megan Fairweather
Subject: RE: Updated memo for consideration
Attachments: DG Memo - Required amendment to FSS SOP 17117V19 - 19 August 2022 updated DR.docx

Hi Helen and Megan,

I had a discussion with David in relation to this. His preference is to include all of the information into the memo to go to staff and he has edited the memo accordingly.

Can you please make an edits and come back to me so I seek his approval and arrange distribution.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Helen Gregg <[redacted]
Sent: Friday, 19 August 2022 1:00 PM
To: Megan Fairweather <[redacted] Matthew Rigby <[redacted]
Subject: RE: Updated memo for consideration
Importance: High

HI Megan and Matt,

The wording I would like to send out with the memo (unchanged) is;

Background:
Our current processes are that after concentration, the remaining sample is approximately 35uL which is enough volume for one quantitation and two amplifications in-house. Conducting a second amplification will exhaust the sample and there will be no remaining sample available for further testing by anther organisation in the future.

The risk associated with undertaking a second amplification needs QPS involvement.

Therefore; our processes from now on will be;

1. Concentrate to a volume of 35uL and perform one amplification.

2. If the scientist determines there may be benefit in performing a further amplification (therefore exhausting the concentrated sample), QPS written approval must be gained before the second amplification commences.

This will become a change to our SOP

Regards
Helen

From: Megan Fairweather <[redacted]
Sent: Friday, 19 August 2022 12:51 PM
To: Matthew Rigby <[redacted] Helen Gregg <[redacted]
Subject: RE: Updated memo for consideration

Hi Matt and Helen

In speaking to the lab scientists this morning, I understand a plan is in place to include a consultation step with QPS to discuss any risk of sample exhaustion or reduction, essentially case by case, or in groups of cases (if able to be described). While those details are being refined operationally, do you see any reason why the A/DG should not send his memo to give effect to his decision now?

Kind regards, Megan

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 11:16 AM
To: Megan Fairweather <[redacted] Helen Gregg <[redacted]
Subject: Updated memo for consideration

Hi Megan and Helen,

Can I please seek your feedback on this updated memo. Once you are comfortable with the content, I will seek David's final approval and arrange for this to be issued from DG Corro.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Helen Gregg
Sent: Fri, 19 Aug 2022 14:21:59 +1000
To: Matthew Rigby;Megan Fairweather
Subject: RE: Updated memo for consideration

Thanks Matt,

I am happy with those amendments

Regards
Helen

Helen Gregg
A/Executive Director
Forensic and Scientific Services
Prevention Division, Queensland Health
p (07) [redacted]
e [redacted] w www.health.qld.gov.au/fss

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and emerging.

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 2:17 PM
To: Helen Gregg <[redacted] Megan Fairweather <[redacted]
Subject: RE: Updated memo for consideration

Hi Helen and Megan,

I had a discussion with David in relation to this. His preference is to include all of the information into the memo to go to staff and he has edited the memo accordingly.

Can you please make an edits and come back to me so I seek his approval and arrange distribution.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Helen Gregg <[redacted]
Sent: Friday, 19 August 2022 1:00 PM
To: Megan Fairweather <[redacted] Matthew Rigby <[redacted]
Subject: RE: Updated memo for consideration
Importance: High

HI Megan and Matt,

The wording I would like to send out with the memo (unchanged) is;

Background:
Our current processes are that after concentration, the remaining sample is approximately 35uL which is enough volume for one quantitation and two amplifications in-house. Conducting a second amplification will exhaust the sample and there will be no remaining sample available for further testing by anther organisation in the future.

The risk associated with undertaking a second amplification needs QPS involvement.

Therefore; our processes from now on will be;
1. Concentrate to a volume of 35uL and perform one amplification.
2. If the scientist determines there may be benefit in performing a further amplification (therefore exhausting the concentrated sample), QPS written approval must be gained before the second amplification commences.

This will become a change to our SOP

Regards
Helen

From: Megan Fairweather <[redacted]
Sent: Friday, 19 August 2022 12:51 PM
To: Matthew Rigby <[redacted] Helen Gregg <[redacted]
Subject: RE: Updated memo for consideration

Hi Matt and Helen

In speaking to the lab scientists this morning, I understand a plan is in place to include a consultation step with QPS to discuss any risk of sample exhaustion or reduction, essentially case by case, or in groups of cases (if able to be described). While those details are being refined operationally, do you see any reason why the A/DG should not send his memo to give effect to his decision now?

Kind regards, Megan

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 11:16 AM

To: Megan Fairweather <[redacted] Helen Gregg <[redacted]
Subject: Updated memo for consideration

Hi Megan and Helen,

Can I please seek your feedback on this updated memo. Once you are comfortable with the content, I will seek David's final approval and arrange for this to be issued from DG Corro.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Matthew Rigby
Sent: Fri, 19 Aug 2022 14:31:38 +1000
To: David Rosengren
Cc: Megan Fairweather;Helen Gregg;Renaie Tesch
Subject: FW: Updated memo for consideration
Attachments: DG Memo - Required amendment to FSS SOP 17117V19 - 19 August 2022 updated DR.docx, Extract 19.4 from SOP 17117V19.pdf

Hi David,
Please see email from helen below.

Attached is the memo and extract for your approval to be sent.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Helen Gregg <[redacted]
Sent: Friday, 19 August 2022 2:22 PM
To: Matthew Rigby <[redacted] Megan Fairweather <[redacted]
Subject: RE: Updated memo for consideration

Thanks Matt,

I am happy with those amendments

Regards
Helen

Helen Gregg
A/Executive Director
Forensic and Scientific Services
Prevention Division, Queensland Health
[redacted]
e [redacted] w www.health.qld.gov.au/fss

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and emerging.

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 2:17 PM
To: Helen Gregg <[redacted] Megan Fairweather <[redacted]
Subject: RE: Updated memo for consideration

Hi Helen and Megan,

I had a discussion with David in relation to this. His preference is to include all of the information into the memo to go to staff and he has edited the memo accordingly.

Can you please make an edits and come back to me so I seek his approval and arrange distribution.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Helen Gregg <[redacted]
Sent: Friday, 19 August 2022 1:00 PM
To: Megan Fairweather <[redacted] Matthew Rigby <[redacted]
Subject: RE: Updated memo for consideration
Importance: High

HI Megan and Matt,

The wording I would like to send out with the memo (unchanged) is;

Background:
Our current processes are that after concentration, the remaining sample is approximately 35uL which is enough volume for one quantitation and two amplifications in-house. Conducting a second amplification will exhaust the sample and there will be no remaining sample available for further testing by anther organisation in the future.

The risk associated with undertaking a second amplification needs QPS involvement.

Therefore; our processes from now on will be;
1. Concentrate to a volume of 35uL and perform one amplification.

2. If the scientist determines there may be benefit in performing a further amplification (therefore exhausting the concentrated sample), QPS written approval must be gained before the second amplification commences.

This will become a change to our SOP

Regards
Helen

From: Megan Fairweather <[redacted]
Sent: Friday, 19 August 2022 12:51 PM
To: Matthew Rigby <[redacted] Helen Gregg <[redacted]
Subject: RE: Updated memo for consideration

Hi Matt and Helen

In speaking to the lab scientists this morning, I understand a plan is in place to include a consultation step with QPS to discuss any risk of sample exhaustion or reduction, essentially case by case, or in groups of cases (if able to be described). While those details are being refined operationally, do you see any reason why the A/DG should not send his memo to give effect to his decision now?

Kind regards, Megan

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 11:16 AM
To: Megan Fairweather <[redacted] Helen Gregg <[redacted]
Subject: Updated memo for consideration

Hi Megan and Helen,

Can I please seek your feedback on this updated memo. Once you are comfortable with the content, I will seek David's final approval and arrange for this to be issued from DG Corro.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

Department of Health

Queensland Government

MEMORANDUM

To:	Helen Gregg, A/Executive Director, Forensic and Scientific Services		
Copies to:	Prof Keith McNeil, Deputy Director-General and Chief Medical Officer, Prevention Division and Chief Clinical Information		
From:	David Rosengren, Acting Director-General	**Enquiries to:**	## 07 ##
Subject:	*Reversion to concentration of all Priority 2 samples in range*		

Following the announcement of the DNA Commission of Inquiry, on 6 June 2022, advice was sought on the workflow relating to samples reported as '*DNA insufficient for further processing'*. This related to Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.

Consideration has included an option for testing that would allow a discretion for FSS Forensic DNA Analysis scientists, including in conjunction with investigating officers at QPS, to decide the merits of undertaking a concentration process for Priority 2 samples within this quantitation range, having regard to other available case information.

I appreciate a risk of the concentration process reducing residual sample quantity and the potential unavailability for additional testing if improved processes are introduced in future.

I have reflected about options for the concentration process and for certainty, pending the outcome of the DNA Commission of Inquiry, I request the workflow to revert to the concentration process for Priority 1 and Priority 2 samples stipulated in Standard Operating Procedure 17117V19 (diagram section 19.4 attached).

For clarity, **all Priority 1 and Priority 2 samples with a quantitation result between 0.001ng/uL (LOD) and 0.0088ng/uL, should be concentrated down to a volume of 35uL and undergo one amplification process.**

If further amplification is considered beneficial, and if this process will exhaust the remaining sample volume, then written approval should be obtained from QPS prior to that process being initiated.

I ask that a review of the laboratory information system be undertaken to identify any sample results within this quantitation range from 6 June 2022 to today's date inclusive. Any such samples are now to be subjected to the concentration process, if not already undertaken.

Consultation has been undertaken with Queensland Police Service on this advice.

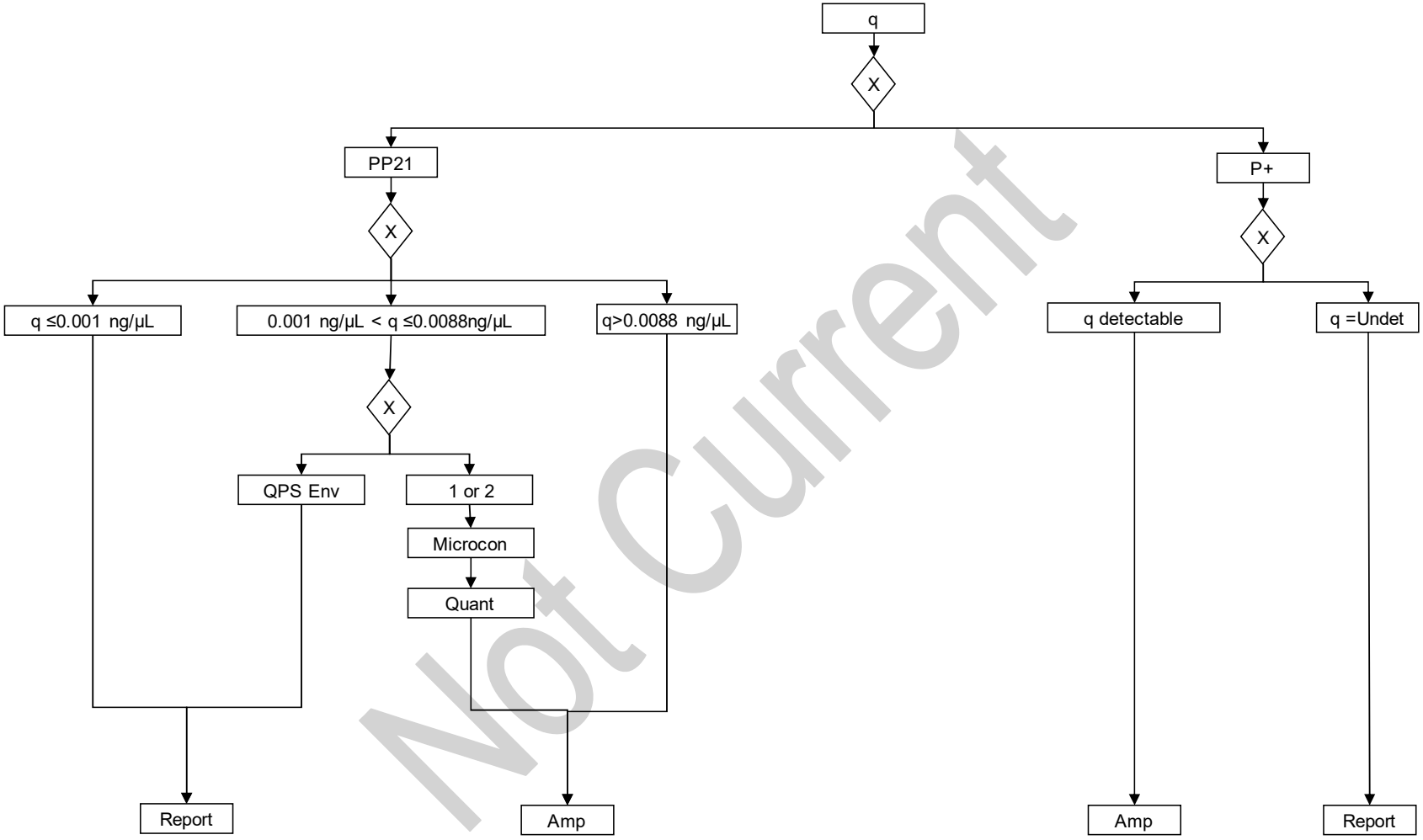
I request that you ensure this memorandum is shared with the Forensic DNA Analysis Unit staff and ensure clarity with the approach outlined above.

Should you require further information, the Department of Health's contact is Prof Keith McNeil, Deputy Director-General on telephone 07 3708 5344.

David Rosengren
Acting Director-General
/ /

Prepared by:	Megan Fairweather Acting Chief Legal Counsel Legal Branch 17 August 2022
Cleared by:	Matt Rigby Executive Director Office of the Director-General 5 August 2022

19.4 Quantification workflow



From: Renaie Tesch
Sent: Fri, 19 Aug 2022 14:36:03 +1000
To: Matthew Rigby;David Rosengren
Cc: Megan Fairweather;Helen Gregg
Subject: RE: Updated memo for consideration

Hi David/Matt,

Just one suggested change in the memo.

If further amplification is considered beneficial, and if this process will exhaust the remaining sample volume, then written approval should be obtained from QPS prior to that process being initiated.

Should the word 'should' be changed to 'must'?

Ren

Renaie Tesch
A/Senior Director
Office of the Director-General and Executive Director
Queensland Health
Queensland Government
[redacted]
W health.qld.gov.au

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 2:32 PM
To: David Rosengren <[redacted]
Cc: Megan Fairweather <[redacted] Helen Gregg <[redacted] Renaie Tesch <[redacted]
Subject: FW: Updated memo for consideration

Hi David,

Please see email from helen below.

Attached is the memo and extract for your approval to be sent.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Helen Gregg <[redacted]
Sent: Friday, 19 August 2022 2:22 PM
To: Matthew Rigby <[redacted] Megan Fairweather <[redacted]
Subject: RE: Updated memo for consideration

Thanks Matt,

I am happy with those amendments

Regards
Helen

Helen Gregg
A/Executive Director
Forensic and Scientific Services
Prevention Division, Queensland Health
[redacted] www.health.qld.gov.au/fss

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and emerging.

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 2:17 PM
To: Helen Gregg <[redacted] Megan Fairweather <[redacted]
Subject: RE: Updated memo for consideration

Hi Helen and Megan,

I had a discussion with David in relation to this. His preference is to include all of the information into the memo to go to staff and he has edited the memo accordingly.

Can you please make an edits and come back to me so I seek his approval and arrange distribution.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

[redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Helen Gregg <[redacted]
Sent: Friday, 19 August 2022 1:00 PM
To: Megan Fairweather <[redacted] Matthew Rigby <[redacted]
Subject: RE: Updated memo for consideration
Importance: High

HI Megan and Matt,

The wording I would like to send out with the memo (unchanged) is;

Background:
Our current processes are that after concentration, the remaining sample is approximately 35uL which is enough volume for one quantitation and two amplifications in-house. Conducting a second amplification will exhaust the sample and there will be no remaining sample available for further testing by anther organisation in the future.

The risk associated with undertaking a second amplification needs QPS involvement.

Therefore; our processes from now on will be;
1. Concentrate to a volume of 35uL and perform one amplification.
2. If the scientist determines there may be benefit in performing a further amplification (therefore exhausting the concentrated sample), QPS written approval must be gained before the second amplification commences.

This will become a change to our SOP

Regards
Helen

From: Megan Fairweather <[redacted]
Sent: Friday, 19 August 2022 12:51 PM

To: Matthew Rigby <[redacted] Helen Gregg <[redacted]
Subject: RE: Updated memo for consideration

Hi Matt and Helen

In speaking to the lab scientists this morning, I understand a plan is in place to include a consultation step with QPS to discuss any risk of sample exhaustion or reduction, essentially case by case, or in groups of cases (if able to be described). While those details are being refined operationally, do you see any reason why the A/DG should not send his memo to give effect to his decision now?

Kind regards, Megan

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 11:16 AM
To: Megan Fairweather <[redacted] Helen Gregg <[redacted]
Subject: Updated memo for consideration

Hi Megan and Helen,

Can I please seek your feedback on this updated memo. Once you are comfortable with the content, I will seek David's final approval and arrange for this to be issued from DG Corro.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

[redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

Department of Health

Queensland Government

MEMORANDUM

To:	Helen Gregg, A/Executive Director, Forensic and Scientific Services		
Copies to:	Prof Keith McNeil, Deputy Director-General and Chief Medical Officer, Prevention Division and Chief Clinical Information		
From:	David Rosengren, Acting Director-General	**Enquiries to:**	## 07 ##
Subject:	*Reversion to concentration of all Priority 2 samples in range*		

Following the announcement of the DNA Commission of Inquiry, on 6 June 2022, advice was sought on the workflow relating to samples reported as '*DNA insufficient for further processing'*. This related to Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.

Consideration has included an option for testing that would allow a discretion for FSS Forensic DNA Analysis scientists, including in conjunction with investigating officers at QPS, to decide the merits of undertaking a concentration process for Priority 2 samples within this quantitation range, having regard to other available case information.

I appreciate a risk of the concentration process reducing residual sample quantity and the potential unavailability for additional testing if improved processes are introduced in future.

I have reflected about options for the concentration process and for certainty, pending the outcome of the DNA Commission of Inquiry, I request the workflow to revert to the concentration process for Priority 1 and Priority 2 samples stipulated in Standard Operating Procedure 17117V19 (diagram section 19.4 attached).

For clarity, **all Priority 1 and Priority 2 samples with a quantitation result between 0.001ng/uL (LOD) and 0.0088ng/uL, should be concentrated down to a volume of 35uL and undergo one amplification process.**

If further amplification is considered beneficial, and if this process will exhaust the remaining sample volume, then written approval should be obtained from QPS prior to that process being initiated.

I ask that a review of the laboratory information system be undertaken to identify any sample results within this quantitation range from 6 June 2022 to today's date inclusive. Any such samples are now to be subjected to the concentration process, if not already undertaken.

Consultation has been undertaken with Queensland Police Service on this advice.

I request that you ensure this memorandum is shared with the Forensic DNA Analysis Unit staff and ensure clarity with the approach outlined above.

Should you require further information, the Department of Health's contact is Prof Keith McNeil, Deputy Director-General on telephone 07 3708 5344.

David Rosengren
Acting Director-General
/ /

Prepared by:	Megan Fairweather Acting Chief Legal Counsel Legal Branch 17 August 2022
Cleared by:	Matt Rigby Executive Director Office of the Director-General 5 August 2022

From: David Rosengren
Sent: Fri, 19 Aug 2022 14:36:33 +1000
To: Renaie Tesch;Matthew Rigby
Cc: Megan Fairweather;Helen Gregg
Subject: Re: Updated memo for consideration

Yes
Get Outlook for iOS
From: Renaie Tesch <[redacted]
Sent: Friday, August 19, 2022 2:36:03 PM
To: Matthew Rigby <[redacted] David Rosengren
<[redacted]
Cc: Megan Fairweather <[redacted] Helen Gregg
<[redacted]
Subject: RE: Updated memo for consideration

Hi David/Matt,

Just one suggested change in the memo.

If further amplification is considered beneficial, and if this process will exhaust the remaining sample volume, then written approval should be obtained from QPS prior to that process being initiated.

Should the word 'should' be changed to 'must'?

Ren

Renaie Tesch
A/Senior Director
Office of the Director-General and Executive Director
Queensland Health

Queensland Government

M [redacted]
E [redacted]
W health.qld.gov.au

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 2:32 PM
To: David Rosengren <[redacted]
Cc: Megan Fairweather <[redacted] Helen Gregg

< [redacted] Renaie Tesch < [redacted]
Subject: FW: Updated memo for consideration

Hi David,

Please see email from helen below.

Attached is the memo and extract for your approval to be sent.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Helen Gregg < [redacted]
Sent: Friday, 19 August 2022 2:22 PM
To: Matthew Rigby < [redacted] Megan Fairweather < [redacted]
Subject: RE: Updated memo for consideration

Thanks Matt,

I am happy with those amendments

Regards
Helen

Helen Gregg
A/Executive Director
Forensic and Scientific Services
Prevention Division, Queensland Health
p (07) [redacted]
e [redacted] w **www.health.qld.gov.au/fss**

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and emerging.

From: Matthew Rigby < [redacted]
Sent: Friday, 19 August 2022 2:17 PM

To: Helen Gregg <[redacted] Megan Fairweather <[redacted]
Subject: RE: Updated memo for consideration

Hi Helen and Megan,

I had a discussion with David in relation to this. His preference is to include all of the information into the memo to go to staff and he has edited the memo accordingly.

Can you please make an edits and come back to me so I seek his approval and arrange distribution.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

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To: Megan Fairweather <[redacted] Matthew Rigby <[redacted]
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Importance: High

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This will become a change to our SOP

Regards
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Sent: Friday, 19 August 2022 12:51 PM
To: Matthew Rigby <[redacted] Helen Gregg <[redacted]
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Hi Matt and Helen

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Kind regards, Megan

From: Matthew Rigby <[redacted]
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Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Helen Gregg
Sent: Fri, 19 Aug 2022 14:37:32 +1000
To: David Rosengren;Renaie Tesch;Matthew Rigby
Cc: Megan Fairweather
Subject: RE: Updated memo for consideration

I would prefer it to be a 'must' – good pick up!

From: David Rosengren <[redacted]
Sent: Friday, 19 August 2022 2:37 PM
To: Renaie Tesch <[redacted] Matthew Rigby <[redacted]
Cc: Megan Fairweather <[redacted] Helen Gregg <[redacted]
Subject: Re: Updated memo for consideration

Yes

Get Outlook for iOS

From: Renaie Tesch <[redacted]
Sent: Friday, August 19, 2022 2:36:03 PM
To: Matthew Rigby <[redacted] David Rosengren <[redacted]
Cc: Megan Fairweather <[redacted] Helen Gregg <[redacted]
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Queensland Government

Renaie Tesch
A/Senior Director
Office of the Director-General and Executive Director
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au

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Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

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Regards
Helen

Helen Gregg
A/Executive Director
Forensic and Scientific Services
Prevention Division, Queensland Health
p (07) [redacted]
e [redacted] w www.health.qld.gov.au/fss

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Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

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Sent: Friday, 19 August 2022 1:00 PM
To: Megan Fairweather <[redacted] Matthew Rigby <[redacted]
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Importance: High

HI Megan and Matt,

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amplification will exhaust the sample and there will be no remaining sample available for further testing by anther organisation in the future.

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Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: David Rosengren
Sent: Fri, 19 Aug 2022 14:43:58 +1000
To: Matthew Rigby;Renaie Tesch
Subject: Final final
Attachments: DG Memo - Required amendment to FSS SOP 17117V19 - 19 August 2022 updated DR.docx

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Department of Health

Queensland Government

MEMORANDUM

To: Helen Gregg, A/Executive Director, Forensic and Scientific Services

Copies to: Prof Keith McNeil, Deputy Director-General and Chief Medical Officer, Prevention Division and Chief Clinical Information

From: David Rosengren, Acting Director-General

Enquiries to: Prof Keith McNeil

07 [redacted]

Subject: *Reversion to concentration of all Priority 2 samples in range*

Following the announcement of the DNA Commission of Inquiry, on 6 June 2022, advice was sought on the workflow relating to samples reported as '*DNA insufficient for further processing'*. This related to Priority 2 samples with a quantitation result of between 0.001ng/uL (LOD) and 0.0088ng/uL.

Consideration has included an option for testing that would allow a discretion for FSS Forensic DNA Analysis scientists, including in conjunction with investigating officers at QPS, to decide the merits of undertaking a concentration process for Priority 2 samples within this quantitation range, having regard to other available case information.

I have reflected about options for the concentration process and for certainty, pending the outcome of the DNA Commission of Inquiry, I request the workflow to revert to the concentration process for Priority 1 and Priority 2 samples stipulated in Standard Operating Procedure 17117V19 (diagram section 19.4 attached).

For clarity, **all Priority 1 and Priority 2 samples with a quantitation result between 0.001ng/uL (LOD) and 0.0088ng/uL, should be concentrated down to a volume of 35uL and undergo one amplification process.**

If further amplification is considered beneficial, and if this process will exhaust the remaining sample volume, then written approval must be obtained from QPS prior to that process being initiated.

I ask that a review of the laboratory information system be undertaken to identify any sample results within this quantitation range from 6 June 2022 to today's date inclusive. Any such samples are now to be subjected to the concentration process, if not already undertaken.

Consultation has been undertaken with Queensland Police Service on this advice.
I request that you ensure this memorandum is shared with the Forensic DNA Analysis Unit staff and ensure clarity with the approach outlined above.

Should you require further information, the Department of Health's contact is Prof Keith McNeil, Deputy Director-General on telephone 07 [redacted]

David Rosengren
Acting Director-General
/ /

Prepared by:	Megan Fairweather Acting Chief Legal Counsel Legal Branch 17 August 2022
Cleared by:	Matt Rigby Executive Director Office of the Director-General 5 August 2022

From: Matthew Rigby
Sent: Fri, 19 Aug 2022 14:58:00 +1000
To: Chief Legal Counsel;Helen Gregg;Renaie Tesch
Cc: David Rosengren
Subject: Final FSS memo and SOP
Attachments: DG Memo - Required amendment to FSS SOP 17117V19 - 19 August 2022 updated DR (004).docx, Extract 19.4 from SOP 17117V19.pdf

Hi All,

Thanks for your feedback Helen and Megan in your emails just received.

Attached is the version approved by the A/DG. Helen you will receive the signed copy of this for you to action from DG Coro shortly.

I will share a copy of this with Inspector Dave Neville from QPS in response to his email from this morning.

Thanks all for your assistance with this and I hope you have a nice weekend.

Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Renaie Tesch <[redacted]
Sent: Friday, 19 August 2022 2:51 PM
To: Matthew Rigby <[redacted]
Cc: David Rosengren <[redacted]
Subject: FW: Final final

As discussed, attached with some minor formatting changes only and correction to Keith's title.

Thanks
Ren

Queensland Government

Renaie Tesch
A/Senior Director
Office of the Director-General and Executive Director
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au

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From: David Rosengren <[redacted]
Sent: Friday, 19 August 2022 2:44 PM
To: Matthew Rigby <[redacted] Renaie Tesch <[redacted]
Subject: Final final

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Department of Health

Queensland Government

MEMORANDUM

To: Helen Gregg, A/Executive Director, Forensic and Scientific Services

Copies to: Professor Keith McNeil, Acting Deputy Director-General, Chief Medical Officer Chief Clinical Information Officer, Prevention Division

From: Dr David Rosengren, Acting Director-General

Enquiries to: Professor Keith McNeil

07 [redacted]

Subject: *Reversion to concentration of all Priority 2 samples in range*

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Consideration has included an option for testing that would allow a discretion for FSS Forensic DNA Analysis scientists, including in conjunction with investigating officers at QPS, to decide the merits of undertaking a concentration process for Priority 2 samples within this quantitation range, having regard to other available case information.

I have reflected about options for the concentration process and for certainty, pending the outcome of the DNA Commission of Inquiry, I request the workflow to revert to the concentration process for Priority 1 and Priority 2 samples stipulated in Standard Operating Procedure 17117V19 (diagram section 19.4 attached).

For clarity, **all Priority 1 and Priority 2 samples with a quantitation result between 0.001ng/uL (LOD) and 0.0088ng/uL, should be concentrated down to a volume of 35uL and undergo one amplification process.**

If further amplification is considered beneficial, and if this process will exhaust the remaining sample volume, then written approval must be obtained from the Queensland Police Service (QPS) prior to that process being initiated.

I ask that a review of the laboratory information system be undertaken to identify any sample results within this quantitation range from 6 June 2022 to today's date inclusive. Any such samples are now to be subjected to the concentration process, if not already undertaken.

Consultation has been undertaken with the QPS on this advice.

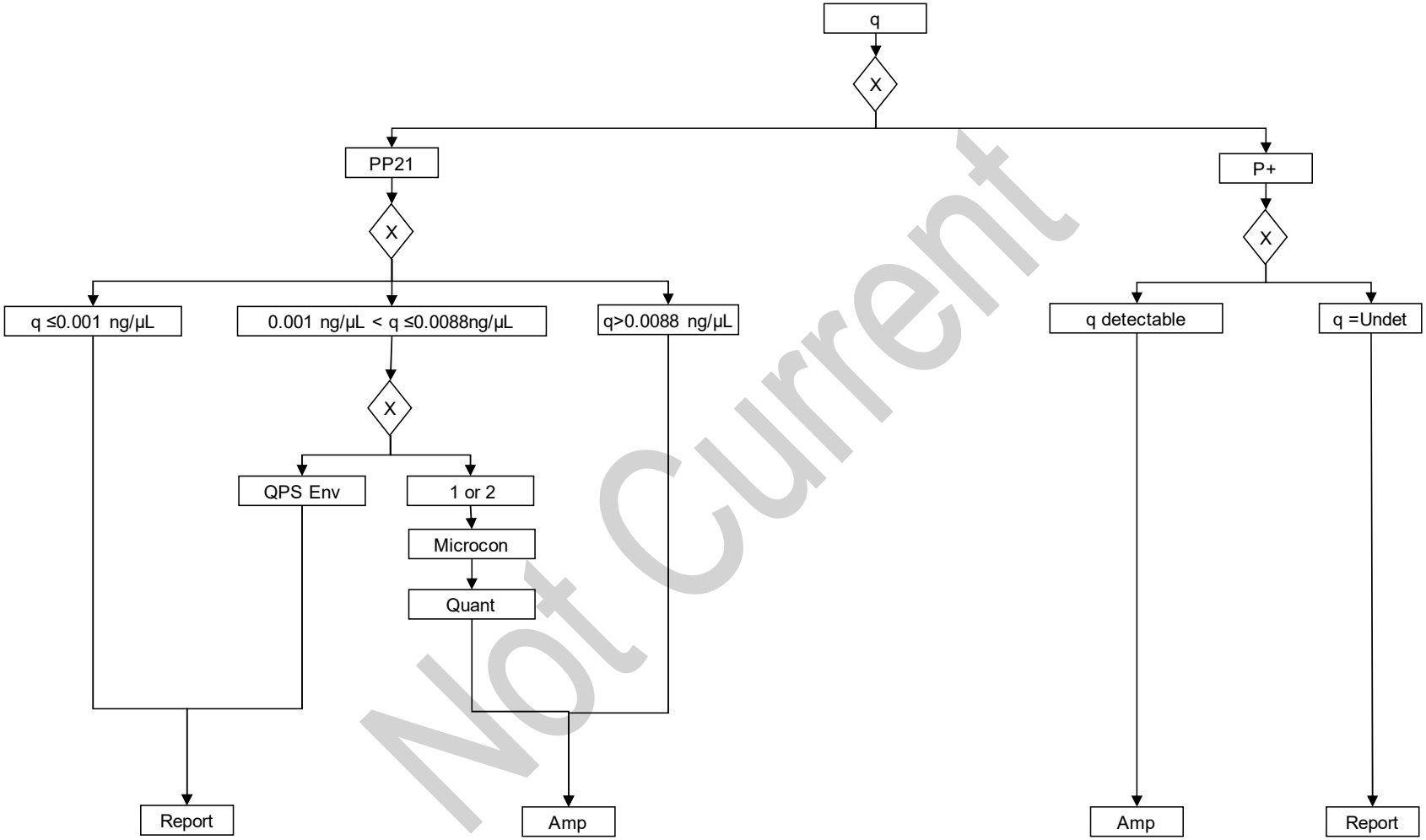
I request that you ensure this memorandum is shared with the Forensic DNA Analysis Unit staff and ensure clarity with the approach outlined above.

Should you require further information, the Department of Health's contact is Professor Keith McNeil, Acting Deputy Director-General on telephone 07 [redacted].

Dr David Rosengren
Acting Director-General
/ /

Prepared by:	Megan Fairweather Acting Chief Legal Counsel Legal Branch 17 August 2022
Cleared by:	Matt Rigby Executive Director Office of the Director-General 5 August 2022

19.4 Quantification workflow



From: Renaie Tesch
Sent: Fri, 19 Aug 2022 15:03:15 +1000
To: DG correspondence
Cc: SDLO;Matthew Rigby
Subject: FW: Final FSS memo and SOP
Attachments: DG Memo - Required amendment to FSS SOP 17117V19 - 19 August 2022 updated DR (004).docx, Extract 19.4 from SOP 17117V19.pdf

Hey Ali,

As per my teams chat can you please action this – (as per chat, register and add CM number to memo before sending).

Please send to addressee – Helen Gregg, with a cc to Keith McNeil, A/DG - David Rosengren, Matt Rigby and Chief Legal Counsel.

Thanks
Ren

Queensland Government

Renaie Tesch
A/Senior Director
Office of the Director-General and Executive Director
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and future.

From: Matthew Rigby <[redacted]
Sent: Friday, 19 August 2022 2:58 PM
To: Chief Legal Counsel <[redacted] Helen Gregg <[redacted]
Renaie Tesch <[redacted]
Cc: David Rosengren <[redacted]
Subject: Final FSS memo and SOP

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I will share a copy of this with Inspector Dave Neville from QPS in response to his email from this morning.

Thanks all for your assistance with this and I hope you have a nice weekend.

Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

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A Level 14, 33 Charlotte Street, Brisbane QLD 4000

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From: David Rosengren <[redacted]
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<[redacted]>
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Department of Health

Queensland Government

MEMORANDUM

To: Helen Gregg, A/Executive Director, Forensic and Scientific Services

Copies to: Professor Keith McNeil, Acting Deputy Director-General, Chief Medical Officer Chief Clinical Information Officer, Prevention Division

From: Dr David Rosengren, Acting Director-General

Enquiries to: Professor Keith McNeil

07 [redacted]

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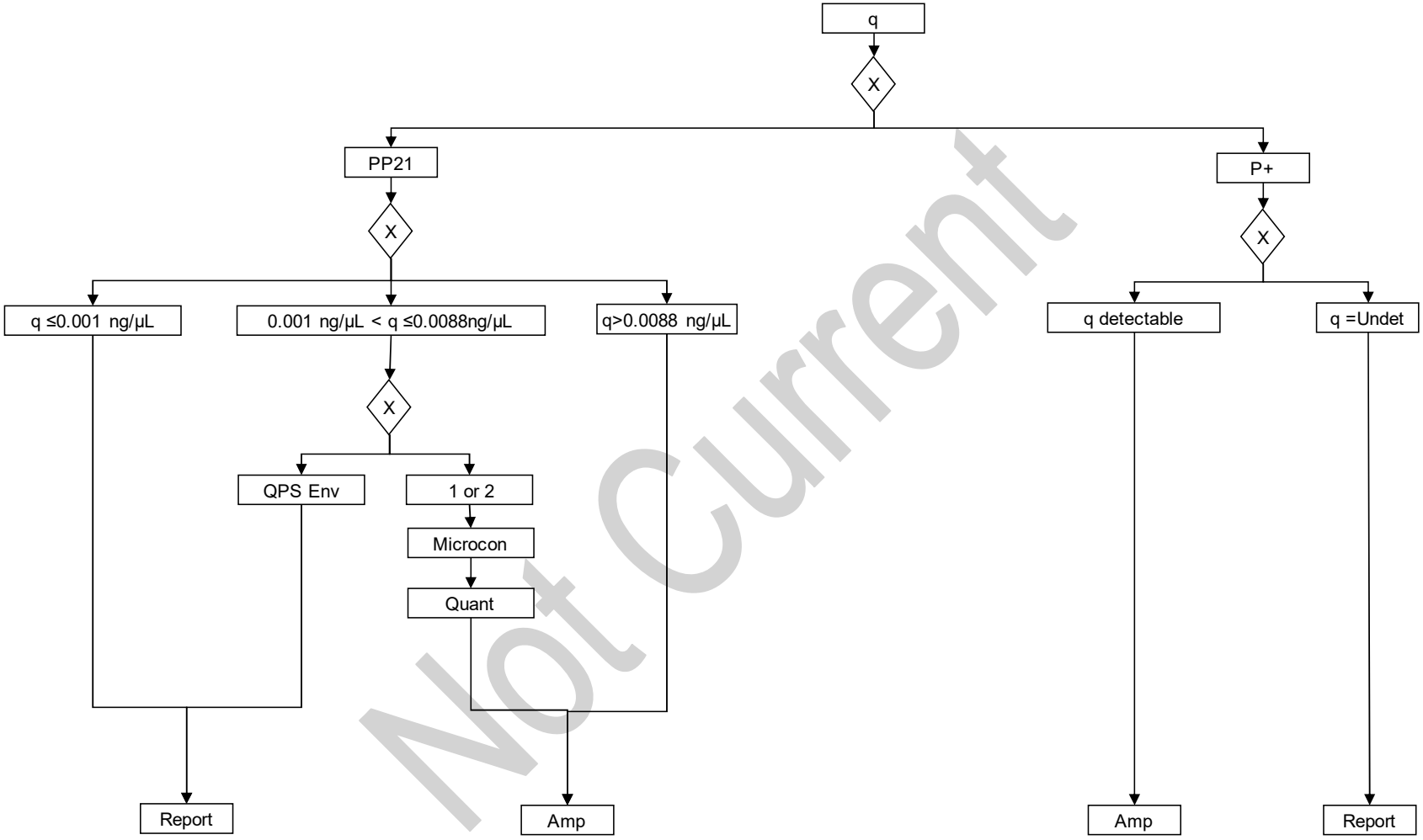
Dr David Rosengren
Acting Director-General
/ /

Prepared by:	Megan Fairweather Acting Chief Legal Counsel Legal Branch 17 August 2022
Cleared by:	Matt Rigby Executive Director Office of the Director-General 5 August 2022

19.4 Quantification workflow



From: Matthew Rigby
Sent: Fri, 19 Aug 2022 16:28:30 +1000
To: Neville.DavidH[OSC]
Cc: McCarthy.DuncanJ[OSC];David Rosengren
Subject: RE: FSS SOP draft memo
Attachments: DG Memo - Reversion to concentration of all Priority 2 samples in range.pdf, Extract 19.4 from SOP 17117V19.pdf

Hi Dave,

Thanks for providing your feedback below through to us.

For your information, the Acting DG has approved the attached and this has been provided through to FSS this afternoon.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

From: Neville.DavidH[OSC] <[redacted]
Sent: Friday, 19 August 2022 9:22 AM
To: Matthew Rigby <[redacted]
Cc: McCarthy.DuncanJ[OSC] <[redacted]
Subject: FW: FSS SOP draft memo

Hi Matt

Thank you for the opportunity to comment on the proposed change to the laboratory workflow involving automatic micro-concentration of samples in the concentration range of .001-.0088ng/uL.

The QPS agreed to the removal of this process in February 2018 following a recommendation that was initiated by the DNA laboratory and presented in an Options Paper. The QPS now has some concern about the information it was provided to make this decision including the manner in which the supporting data was derived.

In November 2018 the QPS first raised concern with the Managing Scientist that the removal of the automatic micro-concentration process may have resulted in evidence being missed. At that time the QPS was given an assurance that the success of micro-concentration was very low and that 'automatic progression of samples through the Microcon process means that all available DNA extract will be consumed, so no further testing can be conducted on these samples after this step'. Based on this advice, the QPS continued with the arrangement.

Due to limitations of the QHFSS DNA laboratory, from time to time the QPS seeks the services of other providers to undertake alternative testing, particularly for low concentration and degraded samples. If the advice from the Managing Scientist is correct, the automatic concentration of all samples in the range of .001-.0088ng/uL could result in the opportunity being lost to use another service provider to obtain important probative evidence. This is a consequence that the QPS is unable to accept as a matter of routine.

The risk is that the proposed directive may result in a sample being exhausted making alternative testing impossible. The QPS does not have the expertise to assess the likelihood of the risk given such an assessment can only be made based on information that is exclusively within the domain of QHFSS. As a result, the QPS considers the decision to reimplement automatic micro-concentration an internal matter that QH must decide in the context that the customer (the QPS) desires to maximise the potential to obtain a profile from every sample, whether that be by services delivered by QHFSS or by another provider that can deliver a service QHFSS is not resourced to deliver.

Regards

David Neville
Inspector
Biometrics
Forensic Services Group
Operations Support Command
[redacted]

From: Matthew Rigby <[redacted]
Sent: Wednesday, August 17, 2022 7:10 pm
To: Neville.DavidH[OSC] <[redacted]
Cc: David Rosengren <[redacted]
Subject: FSS SOP draft memo

Hi Dave,

Thanks for your time today and as discussed with the Acting DG and myself this afternoon, please

find attached a draft memo that has been prepared and the associated SOP extract to provide some further clarity to our staff at FSS.

Appreciate any feedback/input that you have from a QPS perspective.

Thanks Matt

Queensland Government

Matt Rigby
Executive Director
Office of the Director-General
Queensland Health

M [redacted]
E [redacted]
W health.qld.gov.au
A Level 14, 33 Charlotte Street, Brisbane QLD 4000

been checked for the presence of computer viruses.
****

COMMISSION OF INQUIRY INTO FORENSIC DNA TESTING

IN QUEENSLAND

Section 5(1)(d) of the *Commissions of Inquiry Act 1950*

THIRD STATEMENT OF HELEN GREGG

I, **Helen Gregg,** of 39 Kessels Road Coopers Plains, do solemnly and sincerely declare that:

1. I have previously:

   a) provided two statements in this Commission of Inquiry into Forensic DNA Testing (**Commission of Inquiry**) in Queensland dated 16 September 2022 in response to Notice 2022/127 (**First Statement**) and 26 October 2022 in response to 2022/00294 (**Second Statement**); and

   b) given oral evidence in the Commission of Inquiry on 4 October 2022.

2. The purpose of this statement is to supplement the evidence I have provided to date and to provide clarification in relation to some aspects of my evidence, including with respect to my duties and responsibilities as Quality Manager at Queensland Health Scientific Services (**FSS**).

My role as Quality Manager at FSS

3. As explained in my First Statement, I am currently employed in the position of Quality Manager at FSS and have held this role since August 2006 (see **HG-77** for a copy of my position description).

4. FSS is large and diverse organisation which covers a number of streams covering broad areas.

5. I have two core functions as part of my role as Quality Manager:

[redacted] [redacted]

Helen Gregg Witness

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(a) overseeing the quality management system across FSS; and

(b) managing the Scientific Support Services (**SSS**) Unit.

6. I report directly to the Executive Director, FSS.

Overseeing FSS quality management systems

7. I am responsible for leading, maintaining and improving the quality management system across FSS, ensuring effective liaison between FSS and key clients, and to promote FSS services and initiatives.

8. There are approximately 350 employees at FSS.

9. Prior to the recent restructure in October 2022, FSS comprised of 6 different areas:

a) Forensic Pathology & Coronial Services;

b) Clinical Forensic Medicine;

c) Public & Environmental Health;

d) Police Services;

e) Campus Services; and

f) Scientific Support Services.

10. Since the restructure, the Clinical Forensic Medicine has been moved out of FSS.

11. Of these areas at FSS, I am responsible for leading the quality management function for the laboratories within:

(a) Police Services (consisting of Forensic DNA Analysis and Forensic Chemistry (including Illicit Drugs, Trace Evidence and Clandestine Laboratories));

(b) Public and Environmental Health (consisting of Inorganic Chemistry, Organic Chemistry, Radiation and Nuclear Sciences, Microbiology and Virology); and

[redacted]

Helen Gregg [redacted] Witness

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(c) Forensic Pathology & Coronial Services (consisting of Coronial Mortuary and Autopsy Service, Family Services & Support, Forensic Toxicology, Forensic Radiology and Forensic Dentistry).

12. My key duties and responsibilities in respect of this function include:

a) Ensuring each laboratory complies with all relevant certification, accreditation, regulatory and legislative requirements;

b) Leading the development and delivery of training activities on quality issues, including accreditation & certification requirements, and business improvement techniques and tools;

c) Providing expert advice, consultation and direction on quality management system and compliance issues, and informing decision making;

d) Monitoring and contributing to national and international future directions in quality, compliance, and learning and development, ensuring that the organisational performance benchmarks favourably against comparable organisations;

e) Identifying and proactively managing FSS organisational risks and provide consultative advice to service line management on risk minimisation strategies;

f) Managing organisational wide compliance activities for the Executive Director (e.g. clinical governance, regulatory approvals);

g) Leading and managing the specialised OHS activities for the organisation, including staff vaccinations and respirator fit testing; and

h) Leading the development of a learning culture at FSS and manage the learning management system project to deliver online competency-based training for FSS.

13. These duties and responsibilities overall require me to ensure that there are effective quali[redacted]gement systems in place to ensure the quality of each laboratory at FSS.

[redacted]

Helen Gregg Witness

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Managing the SSS team

14. I am also responsible for supervising and managing staff in the SSS Unit. I have 29 direct reports (all FTE employees).

15. The SSS Unit consists of the six separate functions:

a) Quality: This includes laboratory accreditation, quarantine compliance, clinical governance across all FSS laboratories.

b) Information and Research Services (Library): This includes research support, information requests, media alert services, journal subscriptions, document delivery. The Library is viewed as a vital resource for FSS as it provides information to assist the laboratories to answer core business questions (mainly cause of death, and new illicit drugs), as well as provide management with media articles relevant to FSS services.

c) Scientific Skills Development Unit: This includes training coordination and delivery, induction, mandatory training compliance, court training, visiting practitioner and student placements.

d) Forensic Property Point: This includes the receipt, registration and distribution of all samples submitted by the QPS for forensic testing.

e) Public Health Property Point: This includes the receipt, registration and delivery of samples for both Pathology and Public Health laboratories.

f) Scientific Services Liaison Unit: This is first point of contact for incoming calls, coordinating court appearances and liaising with the courts to ensure appropriate time frames for analysis are in place.

16. My key duties and responsibilities in this regard include:

a) Supervising and managing all staff in the SSS unit in line with human resource management practices; and

[redacted] [redacted]

Helen Gregg Witness

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b) Leading and managing the operations of the Scientific Services Liaison unit to provide effective liaison between FSS and key clients regarding scientific analysis of forensic exhibits and public health samples, court schedules and court requirements.

My role with respect to the FDNA

17. The Commission of Inquiry is largely concerned in relation to the work and activities within Forensic DNA Analysis (**FDNA**).

18. There is no position within FDNA which is solely dedicated to quality management.

19. However Dr Kirsten Scott, in her role as Senior Scientist (Quality and Projects Team, FDNA), has duties and responsibilities in relation to quality management in addition to her substantive duties.

20. In this role, Ms Dr Scott had day-to-day responsibility in relation to quality matters within FDNA, including through providing regular quality updates to FDNA staff, managing any OQIs raised in FDNA, coordinating audits, supervising FDNA clinical assistants, as well as being responsible for the administrative management of FDNA projects.

21. From my perspective (including with respect to FDNA and other FSS laboratories):

a) I do not have day-to-day oversight over quality issues which arise in a laboratory;

b) If quality issues arise, they are usually dealt with at a 'local level' and are escalated to the relevant team leader and/or scientist with quality responsibilities embedded in their substantive role to address;

c) If quality issues cannot be resolved on a 'local level', they are usually only at that point raised with me for my advice and input.

22. There is no formalised process for the escalation of issues from FDNA to me and Dr Scott does not have any line management responsibility to me.

[redacted]

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[redacted]

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23. In my oral evidence given to the Commission,[1] I noted I had a more 'reactive' than 'proactive' style to managing quality.

24. I clarify that:

a) the core duties and responsibility which I perform as part of the quality management function of my role (as outlined above at paragraph 12) are pro-active. For example, I am required to:

(i) ensure each laboratory complies with relevant certification, accreditation, regulatory requirements and organisation performance benchmarks;

(ii) develop and deliver training on quality and business improvement matters; and

(iii) manage the learning management system to deliver training for FSS.

b) I have been involved in a number of initiatives and projects at FSS which are of a proactive nature, including in relation to the implementation of certain procedures, instruments and systems within FSS, including the implementation of:

(i) a fluke oil bath for performing temperature verifications;

(ii) an online system for contractor management;

(iii) respirator/mask fit testing for COVID-19 and safe mortuary practices; and

(iv) an infection control system in FSS for ensuring mandatory vaccination compliance and ongoing health surveillance.

c) when I referred to having a 'reactive' style, I was referring to the aspects of my role which require me to provide expert advice, consultation and direction on quality and compliance issues (as referred to above at paragraph 12.c)). As mentioned above, I do not have day-to-day oversight over quality issues which arise within the laboratories (including FDNA). I therefore rely on these matters

[1] Transcrip[redacted]2022, pages 794 ([35]-[46]); 795 ([1]-[13]; [43]-[47]) and 796 ([1]-[7])

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Helen Gregg

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to be escalated to me, at which point I provide my advice and consultation. In this sense, I consider my duties and responsibilities in addressing and advising on these quality issues as 'reactive'.

All the facts and circumstances declared in my statement, are within my own knowledge and belief, except for the facts and circumstances declared from information only, and where applicable, my means of knowledge and sources of information are contained in this statement.

I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the *Oaths Act 1867*.

TAKEN AND DECLARED before me at Brisbane in the State of Queensland this 3 day of Novemb[redacted]

[redacted]

Helen Gregg

Witness

JUSTICE OF THE PEACE (QUALIFIED) QUEENSLAND GOVERNMENT Reg.No.: 100186 DEPT OF JUSTICE & ATTORNEY-GENERAL

[redacted]

Helen Gregg

[redacted]

Witness

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SCHEDULE OF EXHIBITS

Question	Name
HG-77	Helen Gregg's role description – Quality Manager

[redacted]

Helen Gregg

[redacted]

Witness

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DEPT OF JUSTICE & ATTORNEY-GENERAL

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HG-77

Queensland Health
HealthSupport Queensland

Role description

Job ad reference	Insert HSQ Number	**Classification**	HP6
Role title	Quality Manager	**Salary**	Insert Salary
Status	Permanent, Full time	**Closing date**	Insert Closing Date
Unit/branch	Forensic and Scientific Support		
		Contact name	
Location	Coopers Plains	**Contact number**	

If you have difficulties applying please contact Health Support Queensland Recruitment on [redacted]

Why work for us?

At Health Support Queensland (HSQ), you will be part of an organisation who helps care for Queenslanders.

We know it is important for people to work in an organisation that provides more than just a job. In joining HSQ, you will embark on a journey to help us realise our vision of being 'Australia's best healthcare support partner'.

Once you join us, we will expect you to exemplify the HSQ fundamental principles of ICARE:

- Integrity—being honest and ethical in everything we say and do.
- Customers and patients first—putting customers and patients at the centre of everything we do.
- Accountability—taking personal responsibility for our actions.
- Respect—being considerate, recognising our differences and looking out for each other.
- Engagement—actively investing in positive outcomes by partnering with others.

Purpose of the role

To manage the Scientific Support Services unit at Forensic and Scientific Services; lead, maintain and improve the organisations quality management system and learning and development framework, ensure effective liaison between FSS and key clients and promote FSS services and initiatives.

The Quality Manager reports to the Executive Director.

Your key responsibilities will include:

Fulfil the responsibilities of this role in accordance with ICARE and the Queensland Public Service values (QPS) along with the following accountabilities:

Queensland Government

- Adhere to defined service quality standards, health and safety policies and procedures relating to the work being undertaken to ensure high quality, safe services and workplaces.
- Provide operational leadership and management to ensure FSS complies with all relevant certification, accreditation, regulatory and legislative requirements. Be an active member of the FSS Leadership Team, providing expert advice, consultation and direction on quality management system and compliance issues and informing decision making.
- Apply laboratory knowledge and problem-solving skills in a complex scientific environment to provide high level specialised advice to the FSS Executive Director and FSS laboratories.
- Supervise and manage staff of the Scientific Support Services unit in line with human resource management practices.
- Lead the development and delivery of training activities on quality issues, including accreditation & certification requirements, and business improvement techniques and tools. Develop associated competencies, in order to ensure FSS staff are knowledgeable and able to implement learnings.
- Identify and proactively manage FSS organisational risks and provide consultative advice to service line management on risk minimisation strategies.
- Develop and deliver on the Scientific Support Services operational plan and inform and contribute to the FSS plans.
- Manage organisational wide compliance activities for the Executive Director (e.g. clinical governance, regulatory approvals).
- Lead and manage the specialised OHS activities for the organisation, including staff vaccinations and respirator fit testing.
- Lead the development of a learning culture at FSS and manage the learning management system project to deliver online competency-based training for FSS.
- Monitor and contribute to national and international future directions in quality, compliance, and learning and development, ensuring that the organisational performance benchmarks favourably against comparable organisations.
- Lead a client focussed service for the Forensic and Public Health Property Points at FSS.
- Lead and manage the operations of the Scientific Services Liaison unit (SSLU) to provide effective liaison between FSS and key clients regarding scientific analysis of forensic exhibits and public health samples, court schedules and court requirements.
- Advocate and promote the Information and Research Service to support scientific activities and deliver the marketing and communications program.
- Manage the financial accountabilities of the position in accordance with financial management practices.
- Work autonomously and exercise judgement to establish work priorities and meet deadlines.

What are we looking for?

You will be assessed on your ability to demonstrate the following key capabilities, knowledge and experience. Within the context of the responsibilities described under 'your key responsibilities', the ideal applicant will be someone who can demonstrate the following:

- High level knowledge of scientific and laboratory practice.
- Expert knowledge and understanding of the legislation, regulations and standards that apply to a multidisciplinary laboratory organisation
- Proven ability to lead an organisational quality management system and provide high level authoritative counsel to executive management in relation to organisational compliance

- Demonstrated experience in managing staff and leading scientific support services in a complex environment
- Advanced negotiation, consultation, communication and interpersonal skills to build and develop stakeholder relationships and lead the organisational quality, learning and client focussed culture.
- High level organisational skills, with ability to plan, coordinate and prioritise tasks to achieve outcomes. Ability to work autonomously, and demonstrated ability to motivate others
- Well-developed analytical and human management skills that enable identification and resolution of issues

Mandatory qualifications, professional registrations or other requirements

- Mandatory possession of a tertiary qualification in Science
- While not mandatory, a relevant qualification in project management, risk management, education or learning and development would be well regarded

Vaccine Preventable Diseases (VPD) requirements

- It is a condition of employment for this role for the employee to be, and remain, vaccinated against the following vaccine preventable diseases during their employment: Hepatitis A & B, Measles, Mumps, Pertussis, Rubella and Varicella.
- Additional vaccinations including Japanese Encephalitis and Rabies may also be required for this position.
- Existing staff that are engaged prior to 1 July 2016 are not subject to this condition of employment unless they apply for a role with VPD requirements that is with a different Queensland Health entity (i.e. a Hospital and Health Service (HHS) to HSQ).

What is on offer?

- Up to 12.75% employer superannuation contribution
- Annual leave loading 17.5%
- Employee Assistance Program
- Professional development leave 3.6 weeks p.a.
- Professional development allowance
- Work/life balance, variety and flexibility

How to apply

Please provide the following information to the panel to assess your suitability:

- **Your current CV or resume,** including the names and contact details of two referees. Referees should have a thorough knowledge of your capabilities, work performance and conduct within the previous two years, and it is preferable to include your current, immediate or past supervisor
- **A short statement (Max 2 pages)** that gives details of your skills, experience and knowledge as required on the role description under the heading 'what are we looking for?'

About Health Support Queensland

HSQ is an organisational Division of the Department of Health and delivers a range of support services to enable the delivery of frontline health services. HSQ provides services to all Queensland Hospital and Health Services (HHSs), to other government agencies and to commercial clients. The current services provided by HSQ include: pathology services, procurement and logistics for health-related equipment, products and services, biomedical technology services, forensic and scientific services, linen and laundry services, medicines management, 13 HEALTH, radiology support and payroll.

Vision for the public service

To be a government of the 21st century, one government that is connected and working together to deliver smarter, simpler outcomes that are responsive to the needs of Queenslanders now and for the future. We will create opportunities in partnership that are all about positive outcomes rather than just service delivery and regulation.

To enable this vision, the Queensland Public Sector is transforming from a focus on compliance to a values-led way of working. The following five QPS values, underpin behaviours that will support and enable better ways of working and result in better outcomes for Queenslanders.

Customers first

Know your customers
Deliver what matters
Make decisions with empathy

Ideas into action

Challenge the norm and suggest solutions
Encourage and embrace new ideas
Work across boundaries

Unleash potential

Expect greatness
Lead and set clear expectations
Seek, provide and act on feedback

Be courageous

Own your actions, successes and mistakes
Take calculated risks
Act with transparency

Empower people

Lead, empower and trust
Play to everyone's strengths
Develop yourself and those around you

Additional information for applicants

- For details regarding salary information, leave entitlements, flexible working arrangements and other benefits, visit the Queensland Health website.
- All relevant health professionals (including registered nurses and medical officers) who in the course of their duties formulate a reasonable suspicion that a child or youth has been abused or neglected in their home or community environment, have a legislative and a duty of care obligation to immediately report such concerns to Child Safety Services, Department of Communities.
- Pre-employment screening, including criminal history and disciplinary history checks, may be undertaken on persons recommended for employment. Roles providing health, counselling and support services mainly to children will require a Blue Card.
- Employees who are permanently appointed to HSQ may be required to undertake a period of probation appropriate to the appointment.
- Applicants will be required to give a statement of their employment as a lobbyist within one month of taking up the appointment. Details are available at the Public Service Commission Lobbyist Disclosure Policy
- Applicants may be required to disclose any pre-existing illness or injury, which may impact on their ability to perform the role. Details are available in *Section 571 of the Workers' Compensation and Rehabilitation Act 2003*.
- Hepatitis B vaccination or proof that you are not susceptible to hepatitis B is a condition of employment for all staff that will have direct contact with patients of who during their work may be exposed to bodily fluids or blood, or contaminated sharps.
- Roles that interact face-to-face with patients, or the work location is in a clinical area (i.e. a ward, emergency department or outpatient clinic), or frequently or regularly requires attendance in clinical areas, require evidence of vaccination or proof that you are not susceptible to these vaccine preventable diseases:
    - measles, mumps, rubella (MMR)
    - varicella (chicken pox)
    - pertussis (whooping cough)
    - hepatitis B
- Additional vaccinations including Japanese Encephalitis and Rabies may also be required.

NOTE that subsequent evidence must be provided of future vaccination in respect of pertussis (whooping cough) as recommended in *The Australian Immunisation Handbook.*

- Travel may be a requirement.
- Applications will remain current for 12 months and may be considered for other vacancies which may include an alternative employment basis (temporary, full time, part time).

COMMISSION OF INQUIRY INTO FORENSIC DNA TESTING

IN QUEENSLAND

Section 5(1)(d) of the *Commissions of Inquiry Act 1950*

FOURTH STATEMENT OF HELEN GREGG

I, **Helen Gregg,** of 39 Kessels Road Coopers Plains, do solemnly and sincerely declare that:

1. I have previously:

   a) provided three statements in this Commission of Inquiry into Forensic DNA Testing (**Commission of Inquiry**) in Queensland dated 16 September 2022 in response to Notice 2022/127 (**First Statement**), 26 October 2022 in response to 2022/00294 (**Second Statement**) and 3 November 2022 to supplement my previous evidence and provide clarification in relation to some aspects of that evidence (**Third Statement**); and

   b) given oral evidence in the Commission of Inquiry on 4 October 2022.

2. On 10 November 2022, I was requested to provide a statement responding to Notice 2022/00321 "Requirement to Give Information in a Written Statement" (**Notice**).

General commentary

3. The following commentary is relevant generally to all questions answered below.

4. FSS has not received any direction from Queensland Health or any other appropriate stakeholder that the recommendations in the schedule of topics (as set out in the Notice) are to be adopted.

[redacted] [redacted]

Helen Gregg Witness

5. At the present, FSS is trying to determine and prioritise, in conjunction with QPS, what recommendations are expected to be in the COI's final report but it does not currently have this information.

6. I am aware that a number of scientists requested leave to watch the public hearings and this was accommodated. This took these scientists away from their regular duties (including progressing validation work) and has impacted the processing of the number of samples which are currently outstanding.

7. I believe these are the same scientists who have raised issues throughout the COI, including regarding limit of detection, ProFlex validation etc., and in my view, they should be contributing significantly to consider and implement the recommendations, especially through developing the experimental design to ensure all the validations and investigations to be completed are thorough.

8. I am not a forensic scientist. I am unable to personally progress the work required to implement the recommendations by myself and require the scientists to progress this work as well as their 'business as usual' tasks.

9. As a result of the competing demands on staff stemming from COI requests, FSS has an extraordinary number of samples outstanding (over 7,000). FSS has not had this number of samples outstanding for many years. This 'business as usual' demand needs to be considered in conjunction with meeting COI requests, as well as the implementation of recommendations.

Question 1 - Identify what actions or steps have been taken, if any, by FSS to implement the recommendation or begin to implement the recommendation, and how, when and by whom each action or step was taken. If laboratory staff or external experts have been allocated or engaged to perform work to implement or begin to implement the recommendation, identify those staff and what they have been tasked to do and in what timeframe.

Quantifiler Trio Limit of Detection (LOD)

Report of Heidi Baker and Dr Rebecca Kogios (Review of the current operations of the OHFFS DNA Analysis Unit, 28 October 2022) – Recommendation 5

[redacted]..... .....[redacted].....

Helen Gregg Witness

10. Presently, FSS is at the stage of consulting with FSS staff to determine the LOD validation approach. The conversations being had about this recommendation are complex and protracted. Consultation is the first step to implementing the recommendation.

11. I have arranged and attended a number of meetings regarding this recommendation, the details of which are below.

12. Recommendation 5 and 7 are linked and the conversations I have been involved in regarding these recommendations often refer to both. FSS has been primarily concerned with actioning recommendation 7, however, this is linked to recommendation 5 so they are often discussed together.

13. On 2 November 2022, a meeting was held with QPS, the Queensland Health Task Force and FSS staff (in attendance was David Neville, Duncan McCarthy, Stephan Foxover, Lara Keller, Brian McEvoy, Aaron Suthers, Matt Ford and myself). At that meeting we discussed doing the LOD validation for samples <0.001ng/uL. It was decided that FSS would pause on further analysis of samples with a quantitation value of <0.001ng/uL. The reason for this is because FSS currently have over 7000 samples outstanding. Having regard to FSS' limited resources, it was decided that FSS should focus on the higher DNA quantity samples for which it is more likely that a profile would be obtained. Attached and marked **HG-78** is a copy of the file note I took of this meeting. Attached and marked **HG-79** is a copy of the meeting summary prepared by Brian McEvoy that he sent to me via email on the same day as the meeting.

14. It was decided by the attendees of that meeting to put the low level DNA samples on hold and change the wording that is sent across the QPS' QPRIME database. I understand the change was to, for the time being, report paused samples to the QPS with the wording: 'less than 0.001 ng/uL detected with further testing to be performed at a later date' instead of 'no DNA detected'. I do not believe the final wording has been determined yet. This was a group decision and I believe everyone who attended the meeting was in agreement.

[redacted] [redacted]

Helen Gregg Witness

15. There are weekly meetings between FSS (represented by myself, Lara Keller, Matt Ford and Nick Steele), QPS (represented by David Neville and Stephan Foxover) and representatives from the Queensland Health Task Force to discuss the action items coming out of the COI.

16. The first of these meetings occurred on 9 November 2022. At that meeting we discussed taking a case management approach to samples with a quantitation value of <0.001ng/uL and also discussed QPS being co-located with FSS reporting scientists so there is more of a case management approach. Samples with a quantitation value of <0.001ng/uL would be reviewed by QPS to determine if further testing should be prioritised based on case details as well as presumptive testing results.

17. During this meeting, David Neville also directed FSS to not pause the processing of P3 samples with a quantitation value of <0.001ng/uL. This was a verbal direction issued during the meeting. It was understood from this direction that P1 and P2 samples with a quantitation value of <0.001ng/uL should not be reported as 'No DNA Detected', and further testing should be paused until further notice. Attached and marked **HG-80** is a copy of the summary of the meeting which I did not prepare. Attached and marked **HG-81** is a copy of my file note of this meeting.

18. On 10 November 2022, a meeting was held with Luke Ryan, Paula Brisotto, Sharon Johnstone, Matt Ford, Brian McEvoy, Peter Culshaw, Kirsten Scott, Kylie Rika, Rhys Parry and myself. I organised this meeting. I was under the impression that the QH Taskforce was meant to organise this meeting, as per Brian McEvoy's email to me on 4 November 2022, or I would have done it sooner. Attached and marked **HG-82** is a copy of that email. It had been postponed twice from the Monday. Attached and marked **HG-83** is a copy of my file note of this meeting.

19. I prepared a PowerPoint presentation for this meeting. Attached and marked **HG-84** is a copy of this PowerPoint presentation.

20. The purpose of the meeting was to discuss:

[redacted]

[redacted]

Helen Gregg Witness

a) what the process is while FSS carried out the LOD validation (which is set out from (i) below); and

(i) Samples <0.0001ng/ul currently go to the No DNA Detected (**NDNAD**) list in the Forensic Register (**FR**), and from here are released to QPS by an analytical scientist;

(ii) Instead of being released, samples would remain on this list pending further analysis. There is a risk that important samples may be 'stalled' here. So it is proposed that;

(iii) FSS review NDNAD list against presumptive results and retest samples that are presumptive positive (possibly automate this in the future);

(iv) After review by FSS, QPS have their own NDNAD list that is reviewed by QPS to determine if further testing is warranted given their probity within the case; and

(v) These identified samples are immediately further tested by FSS, with other samples remaining on hold pending completion of validation studies.

b) the LOD validation.

21. To be clear, the issues discussed above at paragraph 20.a) have been discussed but have not been agreed to at this stage.

22. In regards to limited detection:

a) I recall Duncan McCarthy raised using 95% probability (0.95) to determine the LOD to possibly set a threshold for further testing. This means that at that quantitation value there is a 5% chance that the value would have been above the threshold, and further testing would occur. However the next time we run the same sample, in 95% of the cases, it will be below that threshold and testing would not occur. In essence, this is a 5% failure rate. The failure rate needs to be understood and accepted by QPS. QPS may wish to have a more stringent probability (e.g.

[redacted] [redacted]

Helen Gregg Witness

99%) and may request to apply this (or none) for different case types based on risk profile.

b) We discussed that FSS also need to make decisions about whether it is only doing limit of detection on the machines, or if it is going through to the actual results (profile) i.e. at what quant level do we get a usable profile? This 'profile' quant level (LOD) is expected to be higher than the 'machine' quant level i.e. we may be able to detect DNA but not get a readable profile at these very low levels.

c) If determining a profile LOD, FSS would prefer to use P3 samples, and FSS needs to obtain QPS approval to use these. However, if FSS is just going to determine a machine LOD, we would only need to purchase and use National Institute of Standards and Technology (**NIST**) standards.

23. During the meeting on 10 November 2022, we discussed a series of steps and actions to take. FSS is in the process of discussing the implementation of a number of pre validation steps, including:

a) documentation of experimental design (this is the design of the experiment). This has been allocated to myself and Rhys Parry to complete. I have prepared a draft of the documentation of experimental design which will be subject to further review from myself and Rhys;

b) documentation of experimental design to be circulated to the DNA Team for comment. I will circulate the documentation of the experimental design once the draft has been approved;

c) Brian McEvoy to meet with Duncan Taylor, during the week commencing Monday 14 November 2022. I understand Brian has had preliminary discussions with Duncan, who has agreed to assist in this process; and

d) I need to document the interim process, which is not necessarily to do with the validation process.

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Helen Gregg Witness

24. On 11 November 2022, I sent an email to the people who attended the 10 November 2022 meeting summarising what was discussed during the meeting and listing the action items. Attached and marked **HG-85** is a copy of the email I sent on 11 November 2022.

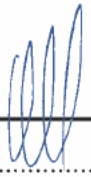
25. On 11 November 2022 at roughly 9.30am there was a COI update meeting. I organised this meeting. In attendance were Paula Brisotto, Peter Culshaw, Luke Ryan, Kylie Rika, Sharon Johnstone, Alison Lloyd, Kirsten Scott, Wendy Harmer, Matt Ford and myself. Lara Keller was an apology. At that meeting, I provided the attendees an update on various issues relating to the COI, including the position with respect to this recommendation. It was decided at this meeting that we would continue to hold these meetings weekly and project leads would provide reports to the attendees to allow us to track progress and remove the barriers to completion of validations. Attached and marked **HG-86** is a copy of my speaking notes for this meeting, that I prepared ahead of the meeting.

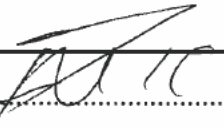
26. To the best of my knowledge, those are the only actions and steps that have been taken by the FSS to implement this recommendation.

Report of Heidi Baker and Dr Rebecca Kogios (Review of the current operations of the QHFFS DNA Analysis Unit, 28 October 2022) – Recommendation 7

27. FSS is in a consultation stage with respect to this recommendation. I have attended the below meetings in which this recommendation was discussed.

28. On 20 October 2022, Luke Ryan spoke to me and raised concerns about the fact that 'No DNA detected' was still being issued to the QPS in relation to some samples. He told me that members of his team had become uncomfortable with continuing to report samples to the QPS as 'No DNA detected' in light of the evidence that had been heard in the COI, and that he was also uncomfortable with this. I suggested that Luke arrange an appointment with Peter Culshaw and Matt Ford to address these concerns, which he did.





Helen Gregg Witness

29. On 24 October 2022, an FSS meeting was held which Luke Ryan, Emma Caunt, Sharon Johnstone, Matt Ford, Peter Culshaw and myself attended. Luke Ryan requested this meeting because his staff were feeling concerned about issuing 'No DNA detected' to QPS through the QPRIME database. Luke wanted some clarity about whether he should be reviewing presumptive tests because this was being mentioned in the COI. Luke said in the meeting that he does not believe that analytical scientists should be doing this, and reporting scientists should be.

30. The outcome from this meeting was that Matt Ford and Peter Culshaw were to consider Luke's proposal. There was no timeframe set for their consideration. Attached and marked **HG-87** is a copy of my file note from this meeting. I followed the decision up with Matt and Peter on 28 October 2022 via email, but did not get a response. Attached and marked **HG-88** is a copy of this email.

31. On 1 November 2022, David Neville emailed Aaron Suthers, Lara Keller and I requesting that the practice of reporting results as 'No DNA detected' needed to be reviewed urgently. The same day, I prepared a draft response for Aaron to send back to David. Attached and marked **HG-89** is a copy of that email chain. Although I understand that the reply was never sent, substantially the same issues were discussed in the meeting discussed at paragraph 32 below.

32. On 2 November 2022, a meeting was held in which the approach to issuing 'No DNA detected' samples was decided. This meeting, and the outcomes from the meeting, are summarised at paragraphs 13 to 14 above.

33. I emailed Luke Ryan on 12 November 2022, asking him to advise if we had stopped issuing 'No DNA detected' results to the QPS, and if we had, when we stopped doing so. On the same day, Luke replied to my email, stating that he has stopped releasing 'No DNA detected' results, and that he stopped on 1 November 2022, after he became aware of the email discussed at paragraph 31 above. Luke also advised that he thought that he only released results marked 'No DNA detected' on one occasion after the

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discussion referred to at paragraph 28 above. Attached and marked **HG-90** is a copy of that email chain.

34. During the meeting on 9 November 2022 discussed at paragraphs 15 to 17 above, the process of ceasing application of the current threshold was also discussed.

35. During the meeting on 10 November 2022 discussed at paragraphs 17 to 23 above, this recommendation was discussed.

Report of Dr Duncan Taylor (Review of the validation material from the Queensland Health Forensic and Scientific Services (QH), 7 October 2022) – Recommendation 9

36. To my understanding, this recommendation is the same as the Baker and Kogios recommendation number 5.

37. During the 10 November 2022 meeting discussed at paragraphs 17 to 23 above, the approach to be used for determination of the LOD (using the QuantiFiler Trio kit and the Quantstudio instrument) was discussed. The general consensus in the meeting was that FSS would design the experiment to capture as much data as possible, meaning not just collating the data for the purpose recommended by Dr Taylor but collection of all the data required to underpin the two options for determination in the future (as discussed at paragraph 22.b) above).

38. A decision has not been made yet regarding the order data will be analysed. It is proposed that FSS will design the experiment in such a way that you only have to run the experiment once, e.g. the experiment will yield all the data we require. It is anticipated that the LOD of the machines will be done prior to the LOD of the profile.

39. To the best of my knowledge, those are the only actions and steps that have been taken by the FSS to implement this recommendation.

Report of Dr Duncan Taylor (Review of the validation material from the Queensland Health Forensic and Scientific Services (QH), 7 October 2022) – Recommendation 10

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Helen Gregg Witness

40. To the best of my understanding, this recommendation is the same as Baker and Kogios recommendation 7.

41. I refer to my response above in relation to recommendation 7.

ProFlex instruments

Oral Evidence of Duncan Taylor (Transcript of Day 11, 14 October 2022) – p1454.33-41

42. My understanding is that this recommendation has been implemented. This was done in consultation with Duncan Taylor. Emma Caunt led this body of work.

43. From my recollection, on Friday 14 October 2022, Emma called Dr Taylor from my office phone (Emma's desk is in an open plan area so my office was preferred). I sat in my office during the call but I did not speak with Duncan. Sharon Johnstone was also present. The conversation occurred on loud speaker. During the call, we discussed the experimental validation that would occur over the weekend. Attached and marked **HG-91** is a copy of my file note of this telephone call.

44. After receiving Dr Taylor's email, Emma Caunt and Cassandra James performed the experimental validation over the weekend of 15 and 16 October 2022. To the best of my knowledge, this was finished by 18 October 2022. Attached and marked **HG-92** is a copy of the report prepared by Emma Caunt and Cassandra James detailing the work they performed.

45. A minor change form was done to record the completion of the work on 17 October 2022. Attached and marked **HG-93** is a copy of the minor change report. Embedded in the minor change report is Dr Taylor's email advising he was happy with the validation that had occurred.

46. After receiving Dr Taylor's email, Emma Caunt and Cassandra James made the changes to all copies of the STRmix software. To the best of my knowledge, this was completed by 18 October 2022.

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47. On 19 October 2022, I had a meeting with Emma Caunt, Cassandra James and Chelsea Savage in my office in which we confirmed the actions undertaken to implement the minor change and it was agreed that Emma would add the change to the change register with the date of 17 October 2022. Attached and marked **HG-94** is a copy of my file note from this meeting.

48. I understand that Dr Taylor accepted the experimental validation that occurred over the weekend, as per his email in which he indicated he accepted Emma's written report.

49. Since 11 November 2022, Emma noticed an anomaly in the STRmix Model Maker interpretation of a sample she was working on. This was noted in the work referred to at paragraph 45, but Dr Taylor accepted this was okay. Dr Taylor advised to keep an eye out for it happening again, which it did. Emma is currently investigating and FSS has ceased STRMix analysis for a subtype of samples while this is being investigated. I am waiting on this investigation to be completed as this will inform whether QPS is advised. To the best of my knowledge this investigation is due to be completed 16 November 2022 but has not been finalised at the time of preparing this statement.

50. To the best of my knowledge, those are the only actions and steps that have been taken by the FSS to implement this recommendation.

Report of Dr Duncan Taylor (Review of the validation material from the Queensland Health Forensic and Scientific Services (QH), 7 October 2022 – Recommendation 8

51. On 4 November 2022, Rhys Parry and Luke Ryan exchanged emails (to which I was copied in) about going back and looking at some old data to determine whether this data could be used at all in the validation.

52. Rhys was of the view the data was unreliable on the basis that there were not enough repeated data points to determine if the variation was what would be normally expected or was a result of an actual problem with the ProFlex machine – more data points would be required to answer this question. I was copied into this email discussion but did not participate. Attached and marked **HG-95** is a copy of the email chain.

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Helen Gregg Witness

53. I understand Rhys did analyse the data after 4 November 2022.

54. We held a meeting on 10 November 2022 to discuss the ProFlex validation (this occurred after the 10 November 2022 meeting I discussed above).

55. The following people attended the meeting: Matt Ford, Sharon Johnstone, Paula Brisotto, Peter Culshaw, Brian McEvoy, Kylie Rika, Rhys Parry, Emma Caunt, Kirsten Scott, Cassandra James, Luke Ryan and myself.

56. I organised this meeting. It was planned to occur on Tuesday 8 November 2022 but was postponed until 10 November 2022 because of various staff absences from the workplace and staff being on non-work days. I made the decision to postpone the meeting because Emma was unavailable on the Tuesday and Rhys had a non-work day on the Wednesday and I believed it was essential that they attend the meeting.

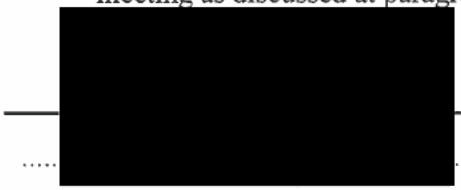
57. During the meeting Rhys advised:

a) he had reviewed historical data and it appeared there may be differences in the machines, however, the data set is not reliable due to low sample numbers and therefore there is low statistical power. In response to the issues, Rhys had drafted a basic experimental design;

b) there was suspected variation between the instruments as outlined in Dr Taylor's report; and

c) there was a need to validate each instrument individually, as the validation already completed had been done using pooled data run on all machines. This would determine whether there was unacceptable variation between the machines.

58. There was a general consensus from others in the meeting that they wanted to see the historical data and the analysis by Rhys, so they could get a better understanding of his concerns and be able to contribute to its investigation. This became an action from the meeting as discussed at paragraph 60.b) below.



Helen Gregg Witness

59. To contribute to this validation, volunteer samples are required. On 9 November 2022, Dr Kirsten Scott sent an email to all FSS staff asking for volunteers to undertake this validation. Attached and marked **HG-96** is a copy of this email. 15 volunteers were requested and at least 20 people responded to this request volunteering to contribute samples.

60. The following action items were discussed during the meeting:

a) Kirsten to create a project folder (an electronic folder on our system that everyone in the team can access). I understand this has been done.

b) Rhys to add PDF files of historical data and any analysis regarding the machines being low/medium or high into the project folder. This was due to be completed by 11 November 2022, however, was not done on this date. On 12 November 2022, I emailed Rhys noting that the task had not been completed, and asking him to please do it as soon as possible. Attached and marked **HG-97** is a copy of my email to Rhys. This has not been actioned by Rhys to date and remains outstanding.

c) Rhys was to add the experimental design to the project folder. This was due on 14 November 2022 and was completed on 16 November 2022.

d) Everyone who attended the meeting is to review the experimental design by 17 November 2022.

e) Brian is to send experimental design to Duncan for comment by 18 November 2022.

61. On 11 November 2022, I sent an email to everyone who attended the meeting summarising what was discussed and outlining the action items. Attached and marked **HG-98** is a copy of this email.

62. To the best of my knowledge, those are the only actions and steps that have been taken by the FSS to implement this recommendation.

Y-STR testing

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Report of Heidi Baker and Dr Rebecca Kogios (Review of the current operations of the QHFSS DNA Analysis Unit, 28 October 2022) – Recommendation 13

63. I am aware that FSS has been attempting to validate Y-STR for about five years without success.

64. On 26 September 2022, I became aware that Kylie Rika is the Project Manager for Y-STR validation. I do not know why this recommendation has not been implemented.

65. On 26 September 2022, Thomas Nurthen provided an update to me about the status of the implementation of this recommendation. This was an unscheduled discussion.

66. During that discussion, Thomas raised that:

a) the $20,000 worth of Y-STR kits that the laboratory purchased to do the validation were going to expire in two and a half weeks. I do not know when the laboratory obtained the kits. The kits have since been disposed of because they expired. I do not know the shelf life of the kits however FSS had the kits prior to the COI commencing.

b) FSS needs QPS permission to use suspect samples to generate a Queensland based indigenous data set for Y-STR testing. As a consequence, FSS could not use the kits until that approval was obtained.

c) FSS had received legal advice regarding the use of samples from Indigenous people. I am aware that legal advice is privileged and as such it has not been attached to this statement. I understand the intent is for FSS to use samples collected from Indigenous people in Queensland to create a specific data set representing Indigenous people in Queensland. Thomas asked me if FSS needed to obtain human ethics approval for obtaining an Indigenous sample. However, because the samples are not owned by FSS, I thought this was a question for QPS.

67. The matters raised by Thomas at paragraph 66 above are an example of the issues that need to be resolved prior to the commencement of the validation.

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68. On 26 September 2022, I emailed Lara Keller and asked her to refer the question regarding approval to use samples to Stephan Foxover. Attached and marked **HG-99** is a copy of this email.

69. On 26 September 2022, Lara Keller emailed Duncan McCarthy, Larissa Miller and Stephan Foxover, advising that the kits were expiring and asking permission to use Indigenous samples to create a data set. I was copied into that email. Attached and marked **HG-100** is a copy of this email.

70. I understand QPS has referred these questions to their internal legal team and FSS are waiting on a response. To the best of my knowledge, the issue remains with QPS legal.

71. From mid October, I started sitting with the QH Taskforce one day per week. The purpose of this was to ensure that I could facilitate progress regarding all COI actions from a FSS perspective. I discussed progress of this recommendation with Stephan Foxover on these days. During these conversations, Stephen has advised that he understands the issues surrounding the permissions that need to be obtained and that he is continuing to follow it up with QPS legal.

72. To the best of my understanding, the questions regarding obtaining a Queensland Indigenous sample data set need to be answered prior to the Y-STR testing recommendation being implemented.

73. During the COI update meeting on 11 November 2022, I updated the attendees on a variety of issues arising out of the COI, including updating the attendees on the progress of the Y-STR project (specifically, that we are waiting on a response from QPS legal, as above). I impressed upon them the need to prioritise the project. I also advised the attendees that the Y-STR kits had expired and there would be a need to purchase more once we have received approval from the QPS to obtain an Indigenous dataset.

74. To the best of my knowledge, those are the only actions and steps that have been taken by the FSS to implement this recommendation.

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Helen Gregg Witness

Report of Clint Cochrane (Report concerning the provision of expert advice concerning Sperm Microscopy at QHFFS, 10 October 2022) – Paragraph 56

75. I refer to my response above in relation to FSS' current position with respect to Y-STR testing.

76. With respect to Y-Quantitation as a screening tool, I understand this is being evaluated as part of the Y-STR testing validation. I do not know if Y-Quantitation was previously considered as a screening tool at FSS.

77. On 9 November 2022, David Neville attended the first weekly meeting between FSS (represented by myself, Lara Keller, Matt Ford and Nick Steele), QPS (represented by David Neville and Stephan Foxover) and representatives from the QH Task Force to discuss the action items coming out of the COI.

78. After that meeting David asked me why FSS was not using Y-Quantitation as a screening tool. In response I told David that I do not know the answer and I would find out. This is the first I recall of it being considered for FSS.

Elution volumes

Report of Heidi Baker and Dr Rebecca Kogios (Review of the current operations of the QHFFS DNA Analysis Unit, 28 October 2022) – Recommendation 17

79. I have been generally informed by the FDNA scientists in day-to-day conversations (of which I have no file notes or emails) that they did an experiment of the elution volume. Based on these conversations, I understand the experiment indicated there is a tension between reducing elution volume and microconcentrating because reducing the elution volume leaves behind DNA but also reduces the need to microconcentrate (i.e. if you have less volume, you do not need to microconcentrate as much, but there is a risk that DNA has not been eluted and thus is 'left behind').

80. That tension needs to be considered and consulted about thoroughly to ensure the QPS fully understands the consequences of any decisions around the tension discussed above.

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81. I believe that this was first brought to my attention post the 19 August 2022 decision (meaning, the memorandum communicated by the Acting Director General directing that priority 2 samples in the range 0.001ng/uL to 0.0088ng/uL were to undergo an automatic microconcentration to 35uL) and during the meetings I had with the reporting staff about the Acting Director General's decisions in the time I was Acting Executive Director.

82. General conversations about this have occurred since then, starting from the time when either Ingrid, Kylie or Emma gave their evidence (I cannot recall who). It struck me at that point that the concern was to get as much DNA as possible in the microconcentration step, but this seems at odds with wanting to reduce the elution volume and leave DNA behind.

83. At the meeting on 11 November 2022, I discussed this issue with Kylie Rika. She believed the microconcentration validation was on hold pending a decision regarding elution volumes. In the corridor immediately after the meeting, I requested Kylie write a discussion paper regarding this issue to determine whether we should accept more microconcentrations or reduce the elution volume. The intent of the discussion paper was to provide it to QPS so they can make an informed decision.

84. On 11 November 2022, Emma Caunt emailed me notes recorded by her and Rhys Parry in relation to a meeting on 28 October 2022. Those notes say that Emma and Rhys think that elution volumes are more important than microconcentration volumes, but did not make a recommendation to put microconcentration on hold. Attached and marked **HG-101** is a copy of this email.

85. Since I have been sitting with the QH Taskforce one day per week, I have had a couple of conversations with Stephan Foxover regarding the tension between elution volume and micro concentration.

86. On 9 November 2022, I had a conversation with David Neville, at the first of the weekly meetings between FSS (represented by myself, Lara Keller, Matt Ford and Nick Steele),

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Helen Gregg Witness

QPS (represented by David Neville and Stephan Foxover) and representatives from the Queensland Health Task Force to discuss the action items coming out of the COI. The purpose of this conversation was to explain the tension between elution volume and micro concentration. I have not told QPS that I have asked for a discussion paper to be written yet because I have not spoken with them since I spoke to Kylie about it. At the time of drafting that statement I have not received or seen a copy of the minutes of that meeting.

87. In 14 November 2022, Kylie Rika arranged a meeting to progress the microconcentration project. At this meeting, the pros and cons of the microconcentration project vs the elution project was discussed. We agreed on a number of action items, including that all attendees were to read previous project reports on this matter to fully understand what investigation has been done in the past. Attached and marked **HG-102** is my file note of this meeting. A follow up meeting is scheduled for 21 November 2022.

88. To the best of my knowledge, those are the only actions and steps that have been taken by the FSS to implement this recommendation.

Bone casework

Report of Heidi Baker and Dr Rebecca Kogios (Review of the current operations of the QHFFS DNA Analysis Unit, 28 October 2022) – Recommendation 19

89. I do not believe bone case work has been ceased. Prior to taking steps with respect to this recommendation, I believed that it was necessary and appropriate to seek advice from Angelina Keller as to whether she supports this recommendation. I believe this was necessary because Angelina is the reporting scientist who undertakes the majority of bone related work.

90. On 27 October 2022, there was a meeting, I believe called by Lara Keller, in response to issues being raised in the COI regarding bone related processes. In attendance were Lara, Angelina, Matt, Rhys and myself. Angelina led the meeting. In that meeting

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Helen Gregg Witness

Angelina updated the attendees regarding the problems that were occurring with respect to bones and asked for permission to investigate those problems. Lara gave permission during the meeting for Angelina to investigate the problems.

91. On 9 November 2022, I received an email from Angelina Keller advising that as at 7 November 2022, there are no additional bones required to be crushed (which is the first step in the bone testing process) and that there are two outstanding cases with results pending for three bones.

92. On 10 October 2022, I was copied into the latest email in a chain beginning on 8 November 2022 between Kristina Morton, Chelsea Savage, Angelina Keller and Rhys Parry which had arisen out of a meeting between those staff members about bone cleaning on 7 November 2022. In the email chain:

a) on 8 November 2022, Kristina told Rhys and Angelina that she and Chelsea were happy for Rhys and Angelina to send a recommendation to me for management to consider ceasing of bone examinations until a cleaning process was validated;

b) on 10 November 2022, Kristina:

(i) said she thought that is was a matter of priority to provide an update to me if Angelina recommended that bone processing cease, because there would be a need to inform the QPS of this if FSS management agreed to cease bone processing; and

(ii) asked Angelina if she wanted to provide a recommendation to me to cease bone processing;

c) after Angelina did not answer Kristina's request for clarification on whether she recommended ceasing bone processing, Chelsea emailed Angelina on 10 November 2022:

(i) copying me, Peter Culshaw, Matt Ford, Luke Ryan, Alison Lloyd and Paula Brisotto into the email chain for the first time;

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Helen Gregg Witness

(ii) stating that she thought that they really needed to decide whether the FSS should cease bone testing;

(iii) stating that she had understood, from the meeting on 7 November 2022, that Angelina was uncomfortable processing bones using the current processes, because of concerns regarding mixtures; and

(iv) stating that she and Kristina believed that the lab clean process is an appropriately validated procedure, and that there is no need to cease testing while further investigations were undertaken; and

d) in reply to Chelsea's email, Angelina replied on 10 November 2022, stating that:

(i) she had had a discussion with Rhys and that she was not concerned with obtaining mixtures from fresh bones, but that she was concerned about containing mixtures from compromised bones;

(ii) ultimately it was not her decision as to whether or not the FSS cease processing bones; and

(iii) that she was confident that we would achieve the best possible outcomes moving forward.

93. Attached and marked **HG-103** is a copy of the email chain discussed at paragraph 92 above.

94. I was not copied into the emails discussed at paragraphs 92.a) to 92.b) above, and was only made aware of them when I was copied into the email chain on 10 November 2022 as discussed at paragraph 92.c).

95. From the email chain discussed at paragraph 92 above, and my knowledge of my role and the roles of others within the FSS, at that time I understood that:

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Helen Gregg Witness

a) it would be up to Kristina Morton, Chelsea Savage, Rhys Parry and Angelina Keller, as the subject matter experts, to make a recommendation to me, if they saw fit, that bone processing should cease;

b) if I received such a recommendation, it would be my responsibility to escalate this to FSS management; and

c) Kristina, Chelsea, Rhys and Angelina did not agree that bone processing should cease, and/or had not made that recommendation to me.

96. On 11 November 2022, I had a meeting regarding bone processing with Kristina Morton. Attached and marked **HG-104** is a copy of my file note from this meeting. At this meeting Kristina communicated to me that she, Chelsea, Angelina and Rhys agreed that bone processing should cease. I asked Kristina to arrange a meeting to discuss ceasing bone processing, and include me in it. This meeting is scheduled for Monday 21 November 2022.

97. Opportunity for Quality Improvement (**OQI**) 56724 has been sent to Angelina Keller to document the investigation and actions she is responsible for carrying out. Attached and marked **HG-105** is a copy of OQI 56724 as at 15 November 2022.

Question 2 – Explain what consideration or decision-making process was undertaken by those in management positions in FSS (including Matthew Ford and Lara Keller) as to whether or not to implement, and how and when to implement, the recommendation.

98. Both Matt and Lara have attended meetings for the various recommendations as I have explained above.

99. Other than what is stated above, they both otherwise have very little to contribute at this stage to the implementation and/or consideration of the recommendations. I see their role as to be informed and facilitate the implementation/consideration of the recommendations being addressed in this statement. These recommendations are about scientific validation, and they are not the FDNA experts. The details of the validations are the responsibilities of the forensic scientists in the laboratory, and relevant external

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Helen Gregg Witness

experts. The role of Lara and Matt is to ensure the validation is completed and that proper consultation with FDNA scientists and external experts has been conducted, and that if any concerns are raised about the validation that they are followed up and addressed.

100. In relation to the implementation of the recommendations more generally, I believe the management team (including myself):

a) would like the appropriate scientists to lead the implementation of the recommendation, and as leaders, I see our role as facilitating the scientists to do this.

b) are conscious that the COI's final report is due on 13 December 2022 and do not want to incorrectly assume what the recommendations will ultimately be.

Question 3 – Explain what considerations, consultation and internal and external advice were taken into account in determining whether or not to implement, and how and when to implement, the recommendation, and the reasons for the decision. Identify in particular whether the following were considerations and what weight they were given in the decision: cost, resources including staff, quality of results, reliability of results, NATA accreditation, backlog, turn around times.

101. In my response to Question 1, I discussed the various meetings and discussions that I have participated in regarding the recommendations, including who attended those meetings/discussions, what was discussed/the purpose of those discussions and the outcomes of those meetings/discussions.

102. Beyond the response I have already provided to Question 1, I provide the following general observations in relation to the 'considerations' outlined in Question 3 and their impact on any decisions in relation to the consideration and implementation of the recommendations:

a) **Cost:** Cost (including the cost of consumables) has never been considered or raised in any of the meetings in which the recommendations were discussed in the context of weighing on decisions. The only time cost came up was when we talked about

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Helen Gregg Witness

disposing of the Y-STR kits, however, that was just an observation rather than a consideration that weighed on any particular decision. From my perspective, it does not matter how much money it costs to implement the recommendations that are handed down by the COI.

b) **Staff resources:** The workload of staff has been significantly affected by the requests made by the COI. This is a general consideration impacting the ability to progress all recommendations at this time. I understand that FSS is prioritising the most urgent recommendations given staff availability.

c) **Quality and reliability of results:** The only consideration FSS has had around quality and reliability of results is in the experimental design (i.e. FSS is focused on undertaking robust experiments which are carefully designed and executed).

d) **NATA accreditation:** The NATA accreditation does not factor into the discussions, considerations or decisions regarding the recommendations. FSS currently holds NATA accreditation, and NATA requirements regarding notification of performing additional validations will be complied with when it is appropriate to do so. The validations and its notification to NATA are part of our BAU, so do not factor into the discussions, considerations or decisions regarding the recommendations.

e) **Backlog/turnaround times:** As discussed above, there are currently over 7000 samples outstanding for processing. I am conscious of this (as I believe FSS are generally) but this does not impact any decision with respect to the consideration or implementation of any potential recommendations, except as discussed at paragraphs 13 to 14 above (in relation to the decision to pause processing of samples with a quantitation value of <0.001ng/uL) and 16 to 17 above (in relation to the decision to continue processing P3 samples with a quantitation value of <0.001ng/uL) in relation to the decision . Similarly, I am conscious of turnaround times (as I believe FSS are generally) however this does not in and of itself impact any decisions in relation to the recommendations.

[redacted]

Helen Gregg

[redacted]

Witness

Question 4 – In relation to Baker & Kogios recommendation 7 / Duncan Taylor recommendation 10, identify in your answer to the above questions:

a. Whether "No DNA detected" has been reported to the QPS in relation to any sample since 14 October 2022, and if so, in relation to how many samples;

103. I understand that 'No DNA detected' has been reported in relation to some samples since 14 October 2022. At the time of preparing this statement, I do not know how many samples 'No DNA detected' was reported in relation to.

104. As outlined at paragraphs 28 to 33 above, it is my understanding (based on advice from Luke Ryan provided on 12 November 2022 by email) that only one set of samples was reported to the QPS as 'No DNA detected' after 20 October 2022, and that no samples have been reported as 'No DNA detected' since 1 November 2022.

105. To the best of my knowledge, the 'No DNA detected' wording has not been changed. I am aware that FSS is waiting to be advised by the QH Taskforce as to what wording will be used moving forward.

106. I understand that FSS has not reversed the decision to hold samples which would have previously been referred to as 'No DNA detected', and intends to progress them in the future when FSS has resources to do so, and when we receive the COI's report. This is consistent with the FSS' consultation with QPS, who agreed that resources should be allocated to samples with a higher concentration of DNA as discussed at paragraphs 13 to 14 above.

b. Whether the laboratory implemented the recommendation for P1 and P2 samples only and not for P3 samples, and if so, the basis of that decision.

107. As stated at paragraph 15 above, there are weekly meetings between FSS (represented by myself, Lara Keller, Matt Ford and Nick Steele), QPS (represented by David Neville and Stephan Foxover) and representatives from the QH Task Force to discuss the action items coming out of the COI.

108. The first of these meetings occurred on 9 November 2022. At that meeting we discussed taking a case management approach to the 'no DNA detected' samples and also

[redacted] [redacted]

Helen Gregg Witness

discussed QPS being co-located with FSS reporting scientists so there is more of a case management approach.

109. During the meeting, David Neville also directed FSS to not pause the processing of P3 'no DNA detected' samples.

110. My response in relation to P1 and P2 samples is contained above at paragraph 17.

In relation to Baker & Kogios recommendation 19, identify in your answer to the above questions:

a. Whether any bone casework has been done since 2 November 2022, and if so, what casework and in relation to how many samples.

111. As above, I do not believe bone case work has been ceased.

112. The extent of my knowledge on this topic is contained above in my answer regarding recommendation 19.

All the facts and circumstances declared in my statement, are within my own knowledge and belief, except for the facts and circumstances declared from information only, and where applicable, my means of knowledge and sources of information are contained in this statement.

I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the *Oaths Act 1867*.

TAKEN AND DECLARED before me at Brisbane in the State of Queensland this 16th day of November 2022

[redacted] ..... [redacted] .....

Helen Gregg Witness

....

Helen Gregg Witness

Helen Gregg Witness

SCHEDULE OF EXHIBITS

Question	Exhibit	Name
1	HG-78	File note of meeting on 2 November 2022
1	HG-79	Summary of 2 November 2022 meeting between FSS, QPS and QH Taskforce by Brian McEvoy
1	HG-80	Forensic DNA Reform Steering Committee Meeting of 9 November 2022 - Meeting Minutes and Outcomes
1	HG-81	File note of meeting on 9 November 2022
1	HG-82	Email from Brian McEvoy to Luke Ryan, Rhys Parry, Helen Gregg and Kylie Rika re LOD validation dated 4 November 2022
1	HG-83	File note of 10 November 2022 meeting
1	HG-84	Powerpoint presentation prepared for 10 November 2022 meeting
1	HG-85	Email from Helen Gregg to meeting attendees summarising 10 November 2022 meeting with attached powerpoint presentation
1	HG-86	Helen Gregg speaking notes prepared for 11 November 2022 meeting re limit of detection dated 10 November 2022
1	HG-87	File note of 24 October 2022 meeting
1	HG-88	Email from Helen Gregg to Matt Ford and Peter Culshaw re NDNAD decision dated 28 October 2022
1	HG-89	Email chain between QPS and FSS re DIFP No DNA Detected results dated 1 November 2022
1	HG-90	Email chain between Helen Gregg and Luke Ryan re DIFP No DNA Detected results dated 12 November 2022
1	HG-91	File note of 14 October 2022 call with Duncan Taylor and Emma Caunt
1	HG-92	Model Maker Report in Response to the COI by Emma Caunt and Cassandra James dated 16 October 2022
1	HG-93	Minor change report dated 19 October 2022 and email from Duncan Taylor approving changes to STRmix dated 17 October 2022
1	HG-94	File note of 19 October 2022 meeting with Emma Caunt, Cassandra James and Chelsea Savage re minor change
1	HG-95	Email chain between Rhys Parry, Luke Ryan and others re Proflex revalidation dated 4 November 2022
1	HG-96	Email from Kirsten Scott to all FSS staff re Seeking staff samples doners for additional work STRmix Model Maker settings Proflex instruments dated 15 November 2022
1	HG-97	Email from Helen Gregg to Rhys Parry re Meeting summary - validation of Proflex instruments and STRMix Model Maker dated 12 November 2022
1	HG-98	Email to attendees of 10 November 2022 meeting summarising meeting and outlining action items dated 11 November 2022
1	HG-99	Email from Helen Gregg to Lara Keller re Fw: Urgent email to QPS : Request for permission dated 26 September 2022

[redacted]

Helen Gregg

[redacted]

Witness

1	HG-100	Email Lara Keller to QPS re Fw: QPS : Request for permission to use samples dated 26 September 2022
1	HG-101	Email from Emma Caunt to HG re Fw Meeting on 28 October dated 11 November 2022 with attachment
1	HG-102	File note of 14 November 2022 meeting
1	HG-103	Email chain between Kristina Morton, Angelina Keller, Chelsea Savage, Rhys Parry and others re Bone OQI meeting 07.11.22 dated 7-10 November 2022
1	HG-104	File note of 11 November 2022 meeting with Kristina Morton re bone processing
1	HG-105	OQI 56724

Helen Gregg Witness

Date 2·11·2022

Topic NDNAD <0.001 ng/µl

Meeting Objectives

Attendees Dave
Duncan
Tamara Watt
Stephan
Lena
* Brian
Aaron

Notes

- expert report LCD no longer use this term until actually determine LCD

- only concerned about mayor crime (DV) and need to do Y-STR. Exhaustion of sample may complicate Y-STR testing.
- commission believes we have stopped DIFP & NDNAD. No idea where this came from by commission
- sexual assault samples → Y-STR recom. by commission.
- Prelim result : NDNAD to GPS 2 months.
- LCD ~60 sample at each level
- Lena: sample type flag STAIC for Y-STR ATWE. Doable - Stephan says yes.
- David: unavailable backlog.
* - keep samples / store.
- Volume? NDNAD.
- Dave - suggested nothing.

Aaron - recommendation is all samples & contemporaneous. Discussion is not congruent with recommendation.

Action Items

- Prioritize LCD as urgency

Stephan - don't use NDNAD (maybe use cooooling)
Dave - LCD okay - comms to CPS, but not in statement. urgent enhancement to FR. ? use expanded wording. (on-hold).
Duncan: use expanded wording.

1. LCD validation study (FSS)
2. <0.001 ng/µl - HOLD pending COI (FSS) (Alex)
3. Further thinking discussion of how to do in FIT
4. Brief internally up (Aaron & Brian)

- LOD vs. DNA profile. for validation (LOD)
  HA raised this as something that needs to be considered.

steering committee 10.30-11.30am Wed.
- Case Manager model / Partnership.

Para convo (after HR ~~mtg~~ meeting @ 11.30)
- ?stay on list or customized report

- Tom has already done LOD for Y-STR
  - Need to do new NIST stds.
  - will speak to Luke & Kirsten, Rhys will be reviewer.
  - maybe draft up exp design & have ext reviewer

Date 2.11.2022

Attendees

Topic

Meeting Objectives Daily catch up (HR)

Notes

- Teams wellness sessions attend (resent) ✓

-

Action Items

Queensland Health

Meeting Summary
Topic - Procedure for Samples with a DNA Concentration <0.001 ng/ul
10:30-11:15, 2 November 2022

Date & Time: 10:30-11:15, 2 November 2022

Venue: Online

Attendees

- Lara, Keller, Helen Gregg, Matt Ford- Queensland Health Forensic and Scientific Services [QH FSS]
- Aaron Suthers, Tamara Scharneck, Nick Quadrelli, Brian McEvoy - Queensland Health Taskforce Response to the CoI into Forensic DNA Testing in Queensland [QH CoI Taskforce]
- David Neville, Duncan McCarthy, Stephan Foxover – Queensland Police Service [QPS]

Background

- Evidence to the Commission of Inquiry (CoI) has highlighted the importance of formally establishing/validating an instrumental DNA Limit of Detection (LOD).
- A *Review of the current operations of the Queensland Health Forensic and Scientific Services DNA Analysis Unit* ('the Review'), undertaken by CoI retained experts, has recommended:
    - QHFSS to prioritise determination of LOD through appropriate validation (Recommendation 5).
    - QHFSS to cease application of current (0.001ng/µl) threshold and progress all samples until such a time as recommendation 5 has been actioned (Recommendation 7.
- This meeting was convened to:
    1. Clarify current QHFSS practices with regard to samples with a DNA concentration of <0.001 ng/ul
    2. Discuss and agree any further changes to these practices, such as progressing samples to concentration and DNA testing.

Discussion Summary

- FSS clarified that the "No DNA Detected" threshold of 0.001 ng/ug is still being applied.
- However, the process has been revised on ad hoc basis to include a review of such samples by a scientist against other sample characteristics, including QHFSS presumptive tests, to ensure results are consistent and sensible.
- One option is to concentrate and test all samples under this threshold. However, it was highlighted that this will have impacts on processing times and backlog, particularly as low concentration DNA profiles can be challenging and time consuming to interpret.
- QPS further noted that any future requirements to retrospect Y-STR test samples makes it difficult to determine an appropriate concentration strategy at this stage due to the possibility of sample exhaustion.

- QH FSS indicated that LOD Validation study could require several weeks or months to undertake and may require subsequent consideration of how samples at this level perform in yielding usable DNA profiles.

Actions & Outcomes

1. All parties agreed that a validation study by FSS to statistically establish the instrument LOD is a high priority and should be progressed as a matter of urgency.

2. Pending the LOD study outcomes, samples with a DNA concentration <0.001 ng/ul will be held for possible further/future analysis.

   An interim update, via a revised descriptor will be provided for these samples through the Forensic Register (FR) explaining that these:

   (A) are low DNA concentration samples; and
   (B) formal release of results will be held pending the outcomes of the LoD study and any other requirements arising from the CoI.

   QHFSS, QPS and the QH CoI Taskforce will work together to revise and agree the relevant wording and request the necessary changes to FR.

3. The QH COI Taskforce will prepare a briefing for QH senior executives to inform them of the outcomes above in the context of the Review recommendations.

4. A regular weekly 'DNA Forensics Reform Steering Committee' (every Wednesday 10:30-11:30) will be established to consider and drive implementation of the recommendations outlined in the Review by the CoI Experts and address any other issues of relevance as they arise.

Queensland Health

Forensic DNA Reform Steering Committee

Meeting Outcomes

Date:	Wednesday, 9 November 2022	
Time:	10:30am – 11:30am	
Venue:	Room 11.02 (Level 11, 33 Charlotte Street) and MS Teams	
Attendees	Mr Aaron Suthers	Executive Director (ED), QH Taskforce Lead, Queensland Health (QH) (Chair)
	Mr Duncan McCarthy	A/Superintendent, Forensic Services Group, Queensland Police Service (QPS)
	Mr Nick Steele	General Manager, Queensland Public Health and Scientific Services, QH
	Mr Brian McEvoy	Director, Sample Management, QH Taskforce, QH
	Ms Tamara Scharneck	Director, Commission Engagement, QH Taskforce, QH
	Ms Helen Gregg	Commission of Inquiry (COI) Scientific Advisor, QHFSS, QH
	Mr Matt Ford	A/Managing Scientist, QHFSS, QH
	Mr David Neville	Inspector, Biometrics, Forensic Services Group (FSG), QPS
	Mr Stephan Foxover	Senior Sergeant, DNA Management Section, FSG, QPS
Guests	Ms Paula Brisotto	Team Leader, Forensic DNA Analysis
	Mr Peter Culshaw	Team Leader Forensic Reporting & Intel, Forensic Chemistry
	Ms Kirsten Scott	Senior Scientist, Forensic DNA Analysis
	Ms Amy Kennedy	Senior Lawyer, Statement Management, QH Taskforce, QH
Apologies	Ms Lara Keller	A/Executive Director, QHFSS, QH
Secretariat	Mr Nick Quadrelli	Senior Principal Advisor, Commission Engagement, QH Taskforce, QH

Item	Topic
1.	Welcome / conflicts of interest / minutes / actions
1.1	**Welcome, Acknowledgement of Country and Apologies** 1. Chair opened the meeting and welcomed members.
1.2	**Steering Committee Governance and Co-Chair Arrangements** 2. Item was not discussed.
2.	Items for Discussion
2.1	**Sperm Microscopy** • Hard copy case audit underway of approx.. 9,000 files (estimate). Preparing batches of 500 samples. Processing time will be dependent on size and complexity of file. ***Agreed Outcomes:*** The Steering Committee: 1. **Noted** the first 500 will provide indicative timeframes. QPS will liaise with QHFSS to assist the prioritisation of batches.
2.2	**Limit of Detection validation report – "No DNA Detected"**

	• Ms Gregg has provided clarification advice to QPS regarding NDD results not being released and confirmation regarding presumptive tests. • Noted there are complications reporting quant values and complexities adding to processing time. Consideration as to the balance of processing lower quant samples versus processing high likelihood profiles between QHFSS and QPS ongoing. • Noted alternative concentration levels (e.g. 5 or 20 ug/l) will be considered but may need to hold over until capability is developed to introduce as workflow. • QPS and QH agreed to any resourcing considerations to support the implementation of a case management approach, noting it is highly likely this will form a final report recommendation. It is anticipated this will minimise any risk of overservicing cases. • QPS and QHFSS to better understand impacts and feasibility of a workflow shift from sample management approach to case management approach. Ms Gregg suggested a staged trial approach using case management for sexual assault cases as a pilot (noting the Forensic Register (FR)) is not setup for this currently). • QPS and QHFSS working to prepare a worklist/spreadsheet to assist decision making on processing, acknowledging the courts may also determine priority. • QHFSS progressing further analysis relating to thresholds and different parameters for validation and verification. Including YSTR testing and when this can be used to determine the most appropriate testing approach (e.g. low quant sexual assault sample). ***Agreed Outcomes:*** The Steering Committee: 1. **Noted** QPS and QHFSS will support a collocated staffing presence at QHFSS to assist in prioritising samples, case conferencing with investigators, and liaison between reporting scientists and investigators. 2. **Agreed** major crime NDD samples would be triaged in the context of presumptive screening results, other results in the case, and consultation with officers. 3. **Agreed** QPS is to have an active role in triaging samples (e.g. finger prints from volume crime which are pulled from testing if prints are identified prior to DNA testing – 'Do not test' approach). 4. **Noted** FFS will enable a shared list in FR to allow QPS to review and prioritise 5. **Noted** the benefits to QPS, QH, and the Commission to considering additional resources to pilot and trial new approaches.
2.3	**Handling of P3 Samples – should processes be reconsidered** • QPS indicated there's enough work to be done as it is and that elution volume findings may resolve this issue. QHFSS confirmed analysis of elution volumes would address this issue. • Members agreed elution volumes would also likely be a recommendation in the Commissioner's final report, given the Bedowi expert findings. ***Agreed Outcomes:*** The Steering Committee: 1. **Noted** QPS supported a status quo approach on the basis that QHFSS are examining appropriate elution values to maximise results.

2.4	**Kogios Baker Expert Report and 47 Recommendations** • Mr Suthers acknowledged Ms Keller's spreadsheet outlining the 47 recommendations. Noting in-principal acceptance of all of the recommendations, the Taskforce will distill into themes to support discussions with Steering Committee on any implementation action planning. This will also support any identification of immediate, short and longer term change and requirements to support implementation. ***Agreed Outcomes:*** The Steering Committee: 1. **Agreed** Mr Suthers, through the Taskforce, will work with Ms Keller on spreadsheet format and bring back to Steering Committee.
2.4	**Reporting Backlog** • Ms Gregg held a meeting last week with QHFSS staff to consult on strategies to address the growing backlog. Mr Ford is holding a further meeting later this week to discuss HR issues (TOIL, overtime, WfH arrangements etc.). • Ms Gregg suggested a clean up of the current statement list to only reflect samples which have completed analysis may reduce time taken for scientists who pick up a statement request and find the sample is still being analysed. QPS submit the request early to sign post the requirement for a statement. Ms Gregg noted guilty pleas or samples no longer requiring testing will reduce the current backlog. • Discussion regarding the timing of receipt of reference sample and the subsequent impact that has on testing and analysis for scientists will be continued between QHFSS and QPS. ***Agreed Outcomes:*** The Steering Committee: 1. **Noted** colocation of QHFSS and QPS staff would provide for liaison between teams to identify an alternative way of flagging samples QPS require a full brief of evidence for. 2. **Noted** QHFSS and QPS are continuing to identify strategies and actions to review P2 samples and prioritise the testing of backlogged samples.
3.	Other Business
3.1	**Nil**
Meeting formally closed at 11:41am	
Next meeting scheduled for 10:30am-11:30am, Wednesday 16 November 2022	

CONFIRMED AND ENDORSED

_____ Dated: _____

Mr Aaron Suthers

Executive Director, QH Taskforce Lead (Chair)

Date 9.11.2022

Topic Reform Meeting

Meeting Objectives

Attendees

Notes

NDNAD - maybe case manage.

* ? triage NDNAD list & leave rest on list?
* presumptive tests (only FSS atm)
* ? GPS triage / case manage.

✓ P3 NDNAD - DO NOT TEST / GO FURTHER - NDNAD result.

Backlog:

Case Managemt: More triaging of submission
Event - low value. (NDNAD & "DIRP").

~~Action~~
* Provide GPS access to ~~the~~ NDNAD worklist. (view only).
✓ * Trial Case managemt for SAIK etc.

Action items

- Y-STR indication? in NDNAD Ask TCM (? NOT POSSIBLE → NO Profile)
- P3 samples - microcon?
  - ✓ DN: we have enough work NO change at this point.
  - elution/volume may assist with this in the future.

Date 9-11-2022

Topic Review Meeting actions

Meeting Objectives

Attendees

Notes

- P3 microcon? no change send email to Allan etc who queried this
- ~~NDNAD~~ SAMES is YSTR - ? spl leftover to send away? email sent awaiting responses
- NDNAD for P2 proces - clarify email sent

Action Items

From: Brian McEvoy
Sent: Friday 4 November 2022 09:03:11 AM
To: Luke Ryan;Rhys Parry;Helen Gregg;Kylie Rika
Cc: Paula Brisotto;Peter Culshaw
Subject: RE: LOD validation

Morning All!

I have to admit from my naïve vantage point, I had thought that the quantification LOD would be effectively equivalent to the DNA profile LOD but obviously its more complex!

I just had a quick look at the Commission Interim Report, which has a brief survey of practices in other jurisdictions with regard to low quant thresholds. Mixed approaches of course but a few seem to have no threshold for serious crime but apply quant thresholds for further processing of volume crime.

So I guess the design of a validation study might also be impacted what future approach looks like i.e if there is an attempt to profile all serious crime samples then is a DNA Profile LOD study needed….

I reckon a catch-up to brain storm is an excellent idea Luke! Helen mentioned the idea of involving Duncan or other experts when we had a validation design in mind but I wonder could we flip that around and see if Duncan would be willing to do a 'LOD Masterclass' with us to help inform the design upfront?

I'm happy to approach Forensic Science SA to see if that is possible if others think it would be worthwhile?

Cheers

Brian

From: Luke Ryan <[redacted]
Sent: Friday, 4 November 2022 7:20 AM
To: Rhys Parry <[redacted] Helen Gregg <[redacted] Kylie Rika <[redacted] Brian McEvoy <[redacted]
Cc: Paula Brisotto <[redacted] Peter Culshaw <[redacted]
Subject: RE: LOD validation

Morning All
I agree with points raised by Rhys (and I have raised these with Helen and Paula as well), we need to clarify whether the LOD assessment is QS5/Quant Trio only or the full workflow for "DNA profiling" (i.e quant-mcon (full/half)-amp-CE). I agree with Rhys that both need to be performed as there is every chance these may be different i.e. the LOD of the QS5/Quant Trio might be higher/lower than the LOD for "DNA profiling". The key LOD for me is the "DNA Profiling" LOD: using serial dilutions to assess obtaining DNA profiles at decreasing DNA concentrations and then using this to assess LOD of the

system, however this will be influence by the LOD of the QS5/Quant Studio, particularly if the Quant Studio LOD is higher than the “DNA profiling” LOD.

Also agree the best way to assess the QS5/Quant Studio LOD is using NIST standards (freshly purchased), but the best way to assess the “DNA profiling” LOD is by using real samples (P3).

We need to clarify the scope of work required before we start planning out the project.

Brian – perhaps we could all meet to discuss this in more detail if this would be beneficial?

Thanks
Luke

From: Rhys Parry <[redacted]
Sent: Thursday, 3 November 2022 4:21 PM
To: Helen Gregg <[redacted] Kylie Rika <[redacted] Brian McEvoy <[redacted] Luke Ryan <[redacted]
Cc: Paula Brisotto <[redacted] Peter Culshaw <[redacted]
Subject: RE: LOD validation

Hi Everyone

Just a couple of thoughts on the preceding email:

- Are we validating the LOD just on the instrument (based on repeatability)? Are we validating to 99% or 95% (given this is failure rate of 1% or 5%

My understanding is that we need to validate LOD and we need to look at how frequently we do get profiles from quants that are Q=0.000. I have seen this happen and am aware of a couple of other people who have also found this. To this end, it would be useful to analyse the post 3500 mcon data concurrently (which would also fulfill another of the recommendations) to correlate with any LOD study performed.

One of the issues we have is that the quant was validated prior to the 3500 and the values obtained at that time, as they pertain to meaningful profiles, are no longer valid. The quant trio validation has a number of issues, including that the quant was always underestimated. As such, there may be some Q=0 samples that actually do have DNA in them.

Therefore, I think it necessary and highly recommend that we fully redo the Quant Trio validation and at the same time look at some of the shortcomings identified in the QS5 validation as these both go together (there is an additional confounding variable in that there are two QS5 machines and so both would need to be done simultaneously). I understand that this will be time consuming but at the moment we could probably afford to slow down processing in analytical as the backlog in FRIT will not be affected by analytical being offline. It is important that these be examined in conjunction with one another and simultaneously as they all affect one another. Assessing an LOD now, without examining the entire quant framework, will only mean that we have to revisit it later (costing more time and money) and we potentially run the risk of having a zone of overlap where “old” quant results and “new” quant results don’t align due to temporal differences in the system. Another reason it is important to do

all these studies together is that it will allow us to get an understanding of the variance at different quant levels (the lack of this understanding was a criticism by Duncan Taylor). Secondly, if we do these studies piecemeal it will mean that conditions (and thus variation) will not be consistent, thereby making conclusions and analysis more difficult (if not invalid).

- Are we including getting a profile in this body for work? If so, are we using NIST standard or P3 sample?

The LOD can be calculated by serial dilution down to a point where we can no longer detect the theoretical value in the sample – this I think could be done without profiling. However, I'm not sure a value for the LOD has any real meaning unless it is correlated with real world data, so I would argue that profiling, at least of the edge cases, would have merit. Determining a point at which we have an effective LOR (ie. below this quant threshold we don't get a useable profile 95/99% of the time even though we might be detecting DNA) is a bit more challenging. There will be a point where we aren't detecting DNA but there is still some DNA (theoretically) in the dilution series sample. One way we could do this is to extrapolate the curve back to the x-axis and then generate sufficient profiles from an equivalent quant (if these are unable to produce meaningful profiles 95/99% of the time then this would be the theoretical LOD). Ultimately, though the way we approach this will be dependant on what we observe in the first part of the study.

In any event, it would need to be NIST standards. The P3s would only potentially be useful once we had established a theoretical value.

- Get Duncan and Rebecca and Rachel to look over our proposal for a tick of approval before we start doing any lab work

I fully agree this should be reviewed by an outside person.

Thanks

From: Helen Gregg <[redacted]
Sent: Thursday, 3 November 2022 1:00 PM
To: Kylie Rika <[redacted] Brian McEvoy <[redacted] Luke Ryan <[redacted]
Cc: Paula Brisotto <[redacted] Peter Culshaw <[redacted] Rhys Parry <[redacted]
Subject: RE: LOD validation

sure

From: Kylie Rika <[redacted]
Sent: Thursday, 3 November 2022 12:57 PM
To: Helen Gregg <[redacted] Brian McEvoy <[redacted] Luke Ryan <[redacted]
Cc: Paula Brisotto <[redacted] Peter Culshaw <[redacted] Rhys Parry <[redacted]
Subject: Re: LOD validation

Hi all

Given Rhys' skill set in the area of stats and experimental design, I have included him on this so he can provide some comment.

thanks
Kylie

From: Helen Gregg <[redacted]
Sent: Thursday, 3 November 2022 12:48 PM
To: Brian McEvoy <[redacted] Luke Ryan <[redacted] Kylie Rika <[redacted]
Cc: Paula Brisotto <[redacted] Peter Culshaw <[redacted] Helen Gregg <[redacted]
Subject: LOD validation

Hi Brian,

I understand that we need to validate the LOD as a matter of urgency. I have had discussions with a number of people over recent weeks, and I believe we now need to clarify if how we are doing this validation.

- Are we validating the LOD just on the instrument (based on repeatability)? Are we validating to 99% or 95% (given this is failure rate of 1% or 5%
- Are we including getting a profile in this body for work? If so, are we using NIST standard or P3 sample?

My thoughts are that we

- work out the of the LOD of the instrument to 95 and 99. Decide where we are drawing the line later. Use NIST standards for this.
- work out whether we get a profile (or stochastic effect) at the 95% and 99% LOD using P3 samples
- Get Duncan and Rebecca and Rachel to look over our proposal for a tick of approval before we start doing any lab work

Thoughts?
Helen

LCD Meeting

Date: 10.11.2022
Page:

LCD
- Talk to Duncan 1st
- Then write something for him to review
-

- Brian to arrange meeting with Duncan
- Lead? ?
- Rhys: Draft experimental design.
  : Literature at these needs the same
  re: Qvat profile.
- ? : Invio & Quantstudio

Micro conf P2/P1.

Kirsten
? where are weaknesses / social bits

Rhys + Helen - Monday.

Meeting Summary 10.11.2022

- (see email)

5

10.11.2022 Duplex

Rhys:

2 Low
2 middle
2 High
not alot of sample data, low power

> Historical Data
> not a great set

7 samples onto plate
Blah Blah
2550 amps

Statistical analysis not complicated

Plate reading will be time consuming

? SHARE Need it written down

call out for 15 volunteers, choose 7 ppl with best profiles.
Kirsten: have over 20 volunteers, will provide to Rhys

2 plates/day → analytical

New
Not different profiles, thinks at variance in stutter will include stuff when it shouldn't.

NDNAD/<0.001

Prior to validation

- NDNAD FSS list – hold
- P3 – release by FSS 'NDNAD' (?wording) (?automate)
- P1/P2 - FSS 'hold' until more resourced to analyse further

  Interim comment released (wording TBD)

  FSS review list against presumptive for sperm and blood and 'make decisions' including Y-STR

  QPS review their (?) list (NDNAD)

  QPS send FSS WL (needs to be created – currently task to Luke) if want to progress. Fall off list when reviewed, or incorrect NDNAD result line and further work requested.

Post validation of LOD

- NDNAD on FSS list
- ?automate checking of presumptives (FSS and QPS?) and ?photos

Validations - NDNAD/<0.001

General comment

Follow Procedure for change management 22871

0.001

- Serial dilutions (1ng to 1pg)
- Use fresh NIST standards to assess QS5/Quant Studio LOD
- Use real samples (P3) to assess 'DNA profiling LOD
- 95 and 99%
- Include usable profiles
- Decide later on 'LOD'?
- Decide later if apply to major and/or volume?
- (get started now)

Helen Gregg

From:	Helen Gregg
Sent:	Friday, 11 November 2022 10:05 AM
To:	Luke Ryan; Paula Brisotto; Sharon Johnstone; Matt Ford; Brian McEvoy; Peter Culshaw; Kirsten Scott; Kylie Rika; Rhys Parry
Cc:	Helen Gregg
Subject:	LOD meeting summary 10 Nov 2022 1pm
Attachments:	LOD presentation 20221110.pptx

Hi everyone,

Thank you for the meeting yesterday and for your patience with my connection issues. It was good to hold this meeting and get everyone talking about ideas together. I find this much more productive than email.

Discussion:

- My notes from ppt – see attached. Need to determine current process (with QPS) while we determine LOD
- Rhys has drafted experimental design. Literature seems to be in agreement that the LOD should include profile analysis
- Discussion about what should be included in the design (quant trio and quantstudio). Kirsten and others are not sure where the strengths and weaknesses in current validations are. Decided that experiment(s) should be designed to gather as much data as possible, then analyse the highest priority, and leave other lower priority for when have more time.
- Rhys stated there would be value in looking at low level samples (P1 and P2) that had already been microconned

I am keen to get some of this work going, so have included due dates. I will do my best to stick to these!

Actions:

1. Helen and Rhys to meet to document design (**Due Monday 14 Nov)**
2. Design to be circulated to group for comment (**Due Tuesday 15 Nov)**
3. Brian to set up meeting with Duncan for mid next week for the group to discuss the proposed design with him (**Due Tuesday 15 Nov)**
4. Kirsten to create project number for this work (#242) - **complete**
5. HG to draft NDNAD process for discussion/finalisation via email, then work with QPS to further finalise and implement(**Due Monday 14 Nov)**

I look forward to discussing the ideas with Duncan next week (depending on his availability)

Regards
Helen

NDNAD/<0.001

Prior to validation

- NDNAD FSS list – hold
- P3 – release by FSS 'NDNAD' (?wording) (?automate)
- P1/P2 - FSS 'hold' until more resourced to analyse further

  Interim comment released (wording TBD)

  FSS review list against presumptive for sperm and blood and 'make decisions' including Y-STR

  QPS review their (?) list (NDNAD)

  QPS send FSS WL (needs to be created – currently task to Luke) if want to progress. Fall off list when reviewed, or incorrect NDNAD result line and further work requested.

Post validation of LOD

- NDNAD on FSS list
- ?automate checking of presumptives (FSS and QPS?) and ?photos

Validations - NDNAD/<0.001

General comment

Follow Procedure for change management 22871

0.001

- Serial dilutions (1ng to 1pg)
- Use fresh NIST standards to assess QS5/Quant Studio LOD
- Use real samples (P3) to assess 'DNA profiling LOD
- 95 and 99%
- Include usable profiles
- Decide later on 'LOD'?
- Decide later if apply to major and/or volume?
- (get started now)

Date: . .
Page:

10.11.2022 LCD Meeting Prep

1. STOP
2. Validation
3. NDNAD for P3

1. STOP

a. Difficulties interpreting
b. current backlog
c. Accepted by QPS to 'hold'. for Y-STR & 'SUS'
   - review against presumptive (Dave works FSS todo)
   - if FSS - reporting scientists
   - automate
   - QPS get comm list (not avs) to review & action if probative

2. Validation - Lets Go! Please!

3. NDNAD for P3

a Statement made by LCIC" based on assumption that NDNAD threshold can be set"

Date: . .
Page:

LCD

NDNAD

- NDNAD FSS list - Hold
- interim comment
- CPS review then list

P3 → go → "NDNAD" wording?
P2 → to CPS list for review / hold.
→ interim comment

post validation of LCD

- NDNAD FSS list
- automate checking presumptive (? photos)
- if "SWS" ...??

NDNAD review & sperm pos

Date: 24/10/2022
Page:

Luke, Emma, Sharon, Matt F, Peter Culshaw

- Luke provided overview of process
  <0.001 0.001 - 0.0088 >0.0088

- Luke reviewing <0.001 ng/ml
  microscopy <+1 (<10 on slide)
  phadebas neg (saliva neg)
  not seen any phadebas pos & NDNAD
  phadebas used to locate stain

Options

a) to reporting to review & maybe release results (all NDNAD)
b) Luke to put on microscan review list for assessment ~ 10

reporting assessment HPU level.

From: Helen Gregg
Sent: Friday 28 October 2022 03:00:08 PM
To: Matt Ford;Peter Culshaw
Cc: Luke Ryan
Subject: NDNAD decision?

Hello Matt and Peter,

Have you considered further the NDNAD process that we met about earlier this week?

Regards
Helen

Helen Gregg
Scientific Support Manager for Forensic DNA Analysis Commission of Inquiry
Forensic and Scientific Services, Queensland Health
p (07) [redacted] m [redacted]
e [redacted] w www.health.qld.gov.au/fss

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and emerging.

Adam Connolly

From: Helen Gregg <[redacted]
Sent: Tuesday 1 November 2022 01:57 PM
To: Aaron Suthers
Cc: Luke Ryan; Lara Keller
Subject: RE: DIFP / No DNA Detected results

Suggested response to Dave Neville – your call Aaron!

Hi David,

Thanks for your email. This is one of the matters that I was hoping to discuss at the roundtable as proposed by Aaron.
I understand that the interim findings were regarding wording of the NDNAD and DIFP comments, and that any directions from the QH Director General were pertaining to the DIFP range. I do not believe there has been any direction re NDNAD samples.

I was hoping to raise this at the roundtable as there are a number of flow on effects that need to be taken into account, and was wanting to get QPS input.

- I have been informed that analysis of a profile (if we even got one) at the NDNAD level is very time consuming, with the scientist trying to work out if it is a 'real' peak or just 'background'.
- Given the current number of outstanding samples, would the time of the scientist be better utilised on samples that are easier (and quicker) to analyse? And will the NDNAD sample – if it gives a result - give a result of probative value? I think we should be putting current resources into the most effective areas, while we get more staff onbrard and trained.

One suggestion I had that I wanted QPS input into was that QPS/FSS review the DNAD samples on the list in FR, determine which ones should be prioritised for microcon and amplification (as they are more likely (?) to be 'useful' by QPS), and we can then process these. We would 'hold' samples not prioritised, and when we have capacity in the future, we can microcon and amp the remaining samples. Ideally, QPS would be able to see the NDNAD list so they can see that the quant was <0.001, or FSS could issue a NDNAD 'interim' result. Part of the review of the NDNAD list could involve looking at the presumptive tests (QPS or FSS performed) as well as photos.

Regards
Helen

From: Neville.DavidH[OSC] <[redacted]
Sent: Tuesday, 1 November 2022 1:21 PM
To: Aaron Suthers <[redacted] Helen Gregg <[redacted] Lara Keller <[redacted]
Cc: McCarthy.DuncanJ[OSC] <[redacted] Foxover.StephanP[OSC] <[redacted]
Subject: Fwd: DIFP / No DNA Detected results

Hi Aaron, Lara and Helen
It has been brought to my attention as per the below that QHFSS is still reporting No DNA results and then stopping testing. I think given the issues identified with the LOD, this practice needs to reviewed urgently, especially for major crime.
I wondered if they should be concentrated and tested.
David Neville
Inspector, FSG
[redacted]

From: McIntyre.OliviaM[OSC] <[redacted]
Sent: Tuesday, November 1, 2022 12:36 pm
To: Foxover.StephanP[OSC] <[redacted] Neville.DavidH[OSC] <[redacted]
Cc: Van Doorn.LaurenM[OSC] <[redacted] Hoffman.CarolynP[OSC] <[redacted]
Subject: DIFP / No DNA Detected results

Hi all,

Mr Hodges is talking around DIFP, and no DNA Detected results (when they were being reported), his words.

We know that DIFP stop being validated in June 2022, however â€˜No DNA Detectedâ€™ results continue to be reported. As an example, we have received 666 results of this type since the start of September 2022.

Just checking that the commission is not under the understanding that this result is no longer used?

Kind regards

Olivia McIntyre
DNA Management Officer
DNA Management Section, Forensic Services Group
Operations Support Command
Ph: 07 [redacted] Mobile [redacted]
334
200 Roma Street, Brisbane
[redacted]

Adam Connolly

From: Luke Ryan <[redacted]
Sent: Saturday 12 November 2022 07:20 AM
To: Helen Gregg
Subject: RE: Questions
Attachments: RE: DIFP / No DNA Detected results

Hi Helen
I haven't been releasing any NDNAD. I think I stopped when we had that email from Insp Neville and Olivia (see attached) 1 Nov.

To be honest I think I only released results once after we had that chat in your office about a week before 1 Nov.

Does that help?

Thanks
Luke

From: Helen Gregg <[redacted]
Sent: Saturday, 12 November 2022 7:17 AM
To: Luke Ryan <[redacted]
Subject: Questions

Hi Luke

Could you please advise if we have stopped releasing NDNAD results?
If so, when did we stop?

Thanks
Helen

Helen Gregg
Scientific Support Manager for Forensic DNA Analysis Commission of Inquiry

Forensic and Scientific Services, Queensland Health

p (07) [redacted] m [redacted]
e [redacted] w www.health.qld.gov.au/fss

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Sent: Tuesday, 1 November 2022 1:21 PM
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Cc: McCarthy.DuncanJ[OSC] <[redacted] Foxover.StephanP[OSC] <[redacted]
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Olivia McIntyre
DNA Management Officer
DNA Management Section, Forensic Services Group
Operations Support Command
Ph: 07 [redacted] Mobile [redacted]
334
200 Roma Street, Brisbane
[redacted]

Date 14.10.2022

Topic

Meeting Objectives

Duncan evidence

Attendees

Sharon

EMMA.

Notes

- validation
- model makers — March
- results pvds ok.
- some errors
- run model makers in pooled manner with 9700 as interim
- for each individual instrument as well
- Needs to be communicated to staff esp those

Action Items

Queensland Health

Forensic and Scientific Services

Model Maker Report in Response to the

Authors: Emma Caunt, Cassandra James
Document Date: 16 October 2022

Introduction

The ProFlex™ 96-well PCR System (ProFlex) thermal cyclers were implemented in Forensic DNA Analysis on 10th January 2022, replacing the end-of-life GeneAmp® PCR System (9700) thermal cyclers.

Advice from the STRmix™ support group recommended re-running Model Maker to see whether the new thermal cyclers have affected the allelic peak heights. If there were no substantial changes to the variances determined by Model Maker, then it would be acceptable to keep using the existing STRmix™ parameters.

Model Maker work was undertaken and in May 2022. As the new variances specific to the ProFlex instruments were set to be implemented, an error with the Model Maker analysis was identified that could potentially lead to incorrect variances. Drop-in modelling had been erroneously enabled in STRmix™ when Model Maker was run. Remodelling with the drop-in parameter disabled was not completed at the time

Following his provision of evidence at the Commission of Inquiry into Forensic DNA Testing in Queensland, Dr Duncan Taylor recommended that the laboratory determine the Model Maker settings as soon as possible using the data pooled from all ProFlex machines during the ProFlex validation. Those settings should be implemented before any further results are processed in STRmix™. In a telephone conversation with Emma Caunt on 14 October 2022, Dr Taylor further stated that comparisons of LRs generated from deconvolutions run with the laboratory's current settings and the updated settings generated using the ProFlex data be performed.

This report details the results of the work performed.

Methods

A batch 42 samples was created and amplified on each of the 6 ProFlex instruments. This batch consisted of 6 single source samples each with input templates of 0.001ng, 0.005ng, 0.025ng, 0.125ng,0.25ng, 0.5ng and 0.7ng.

A second batch of 120 samples was created and amplified once across two different ProFlex instruments. This batch consisted of 10 single source samples each with input templates of 0.025ng, 0.078ng, 0.131ng, 0.183ng, 0.236ng, 0.289ng, 0.342ng, 0.394ng, 0.447ng, 0.125ng,0.25ng, 0.5ng, 0.6ng and 0.7ng.

The resultant DNA profiles were read at 80 rfu with -1 rpt stutter and +1 rpt stutter left labelled as per standard operating procedures.

The following samples were removed from the dataset:

VCE20210521-07_80RFU D10 due to an additional peak being detected
VCE20210521-07_80RFU F08 due to an additional peak being detected
VCE20210521-08_80RFU D09 due to broad peaks

Queensland Government

VCE20210524-02_80RFU C09 due to an additional peak being detected
VCE20210524-04_80RFU F08 due to an additional peak being detected
(1) 0.025 due to possible drop in and broad peaks
(1) 0.5 due to possible drop in and broad peaks

Data obtained from each of the batches were combined into one single source input file and reference profile information was collated into a separate input file. The resulting files were analysed using the Model Maker function of STRmix™ v2.8.0 with the drop-in modelling turned off; all other settings remained the same.

Mixed DNA profiles have previously been created and analysed using STRmix v2.7.0 for *Project #219 – Verification of STRmix v2.7.0 for 3500xL*; the deconvolution of these DNA profiles was performed using the current laboratory settings. A selection of these DNA profiles was deconvoluted using STRmix v2.8.0 using the settings determined using the ProFlex data and likelihood ratios (LR) calculated. These two sets of analyses were compared to determine whether any differences due to the different settings were observed.

It is considered appropriate for this comparison to be made even though two different versions of STRmix have been used as *Project #231 – Verification of STRmix v2.8* showed that DNA profiles analysed using both STRmix versions showed no difference in results beyond that expected due to the variability of the MCMC.

Results and discussion

A summary of each variance value calculated by Model Maker is included in Table 1 below, along with the values currently in place for routine analysis (sourced from *Project #219 - Verification STRmix™ 2.7 for 3500xL*).

Table 1 Summary of Model Maker output

		Current Settings	ProFlex Settings
Allele Variance c^2	**α**	10.197	10.494
	β	1.801	1.639
	MODE	16.564	15.561
Back (-1rpt) Stutter Variance k^2	**α**	1.703	2.165
	β	14.134	8.484
	MODE	9.936	9.884
+1rpt stutter Variance k^2	**α**	5.519	2.721
	β	28.11	31.854
	MODE	127.029	54.821
LSAE Variance	**λ**	103.756	53.084
	MEAN	0.010	0.019

Comparisons of the current settings with those obtained from the ProFlex data showed that there were differences between them.

In order to visualise the above data, graphical representations comparing the current values to those generated from the full Model Maker analysis are shown in Figure 1 to Figure 4 below.

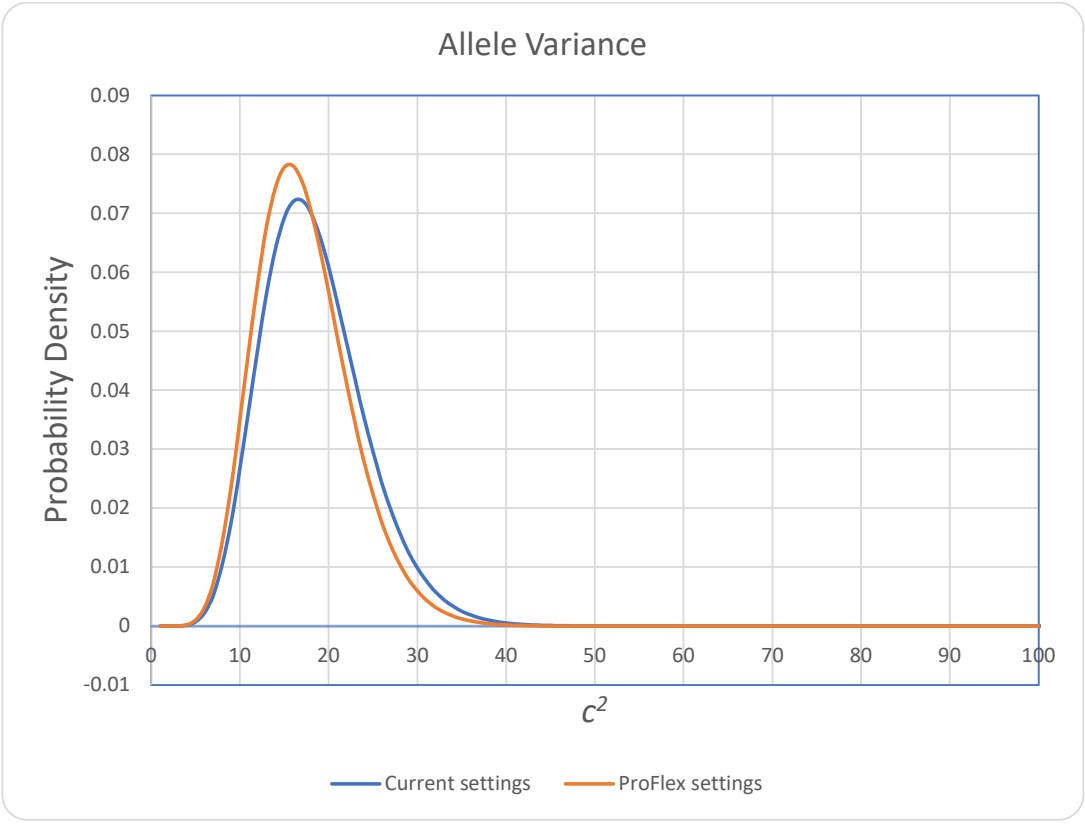


Figure 1 Allele variance comparison between current and ProFlex settings

Figure 1 shows that the allele variances between the current settings and the ProFlex settings are similar.

Figure 2 Back stutter variance comparison between current and ProFlex settings

The -1 rpt stutter (back stutter) variance distributions (Figure 2) have a similar mode however the distribution for the ProFlex variance is narrower than the distribution relating to the current settings. This could result in more stutters being designated as allelic using the ProFlex settings than the current settings. It therefore could be considered that the current settings would be more lenient than the ProFlex Model Maker settings.

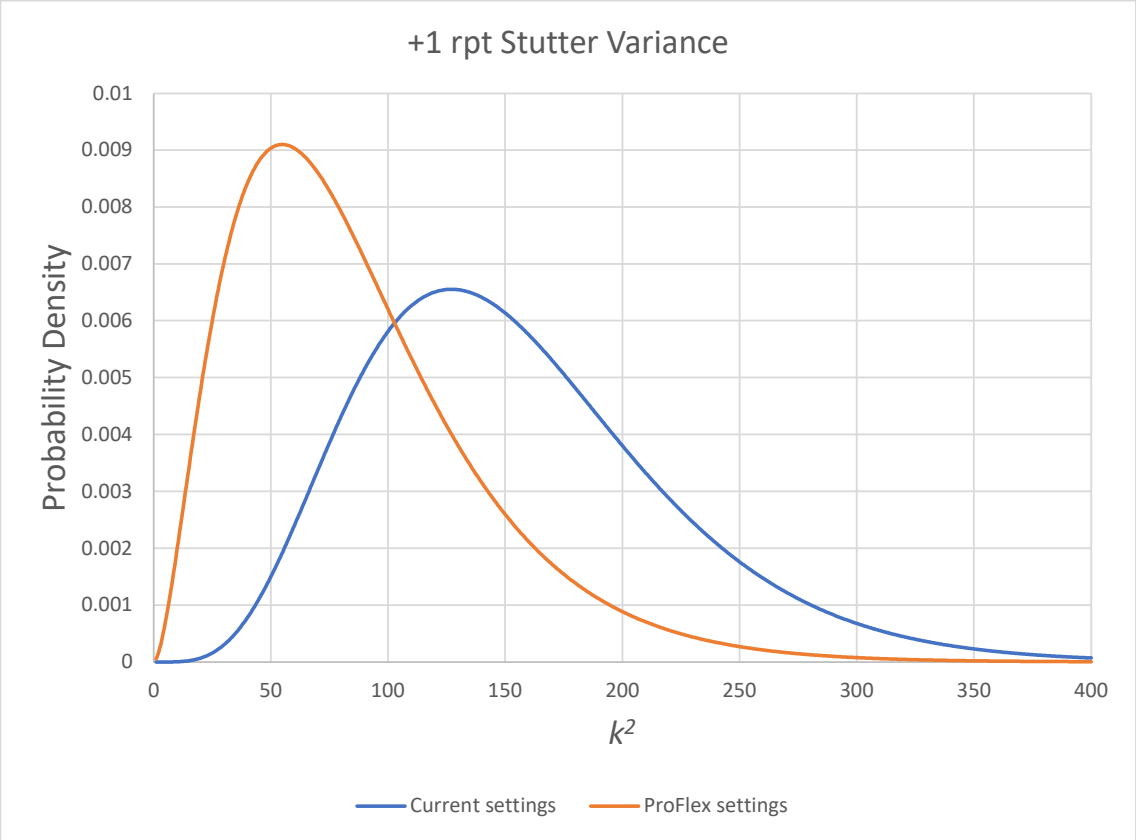


Figure 3 +1 rpt stutter variance comparison between current and ProFlex settings

The +1rpt stutter variance values (Figure 3) are very different with respect to the mode and the shape of the distribution. This could result in more +1pt stutters being designated as allelic under the ProFlex settings than under the current settings being used. It therefore could be considered that the current settings for +1 rpt stutters are more lenient than ProFlex model maker settings.

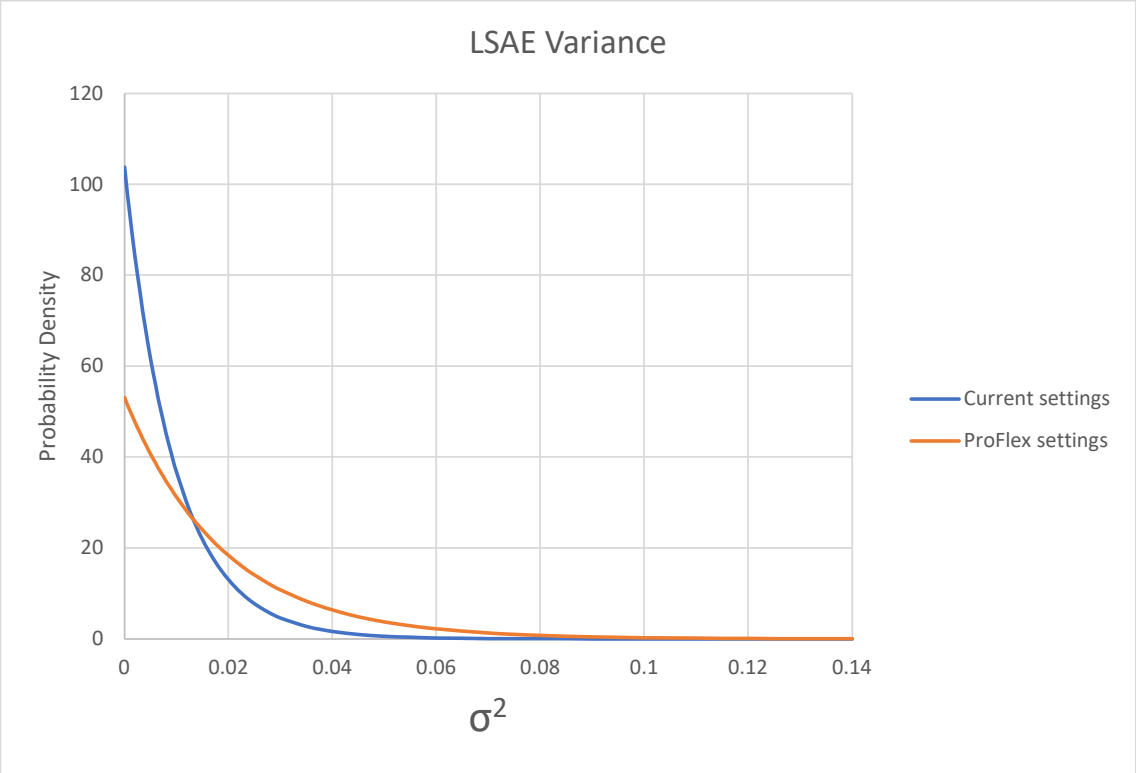


Figure 4 LSAE variance comparison between current and ProFlex settings

The LSAE variance value for the ProFlexes is higher than that of the current LSAE variance. This difference could have a significant effect on profile modelling as it may allow for more profile variations than the current settings.

The input data from the ProFlex Model Maker analysis described above was entered into the Model Maker check spreadsheet (provided by STRmix™ technical support), this showed that the data provided a **97.7%** coverage which is above the required 95%. This is represented in Figure 5 below.

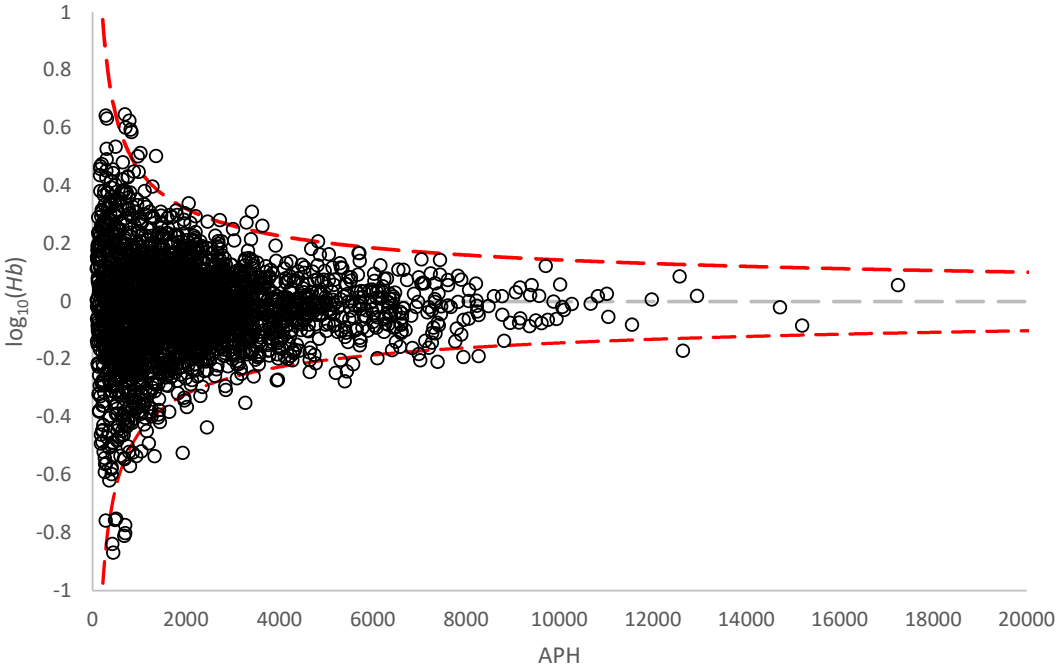


Figure 5 Model Maker check output (ProFlex Model Maker analysis)

Comparison of LRs and resolved alleles between current settings and ProFlex settings

Twelve mixed DNA profiles, ranging from two to four contributors, previously created and analysed using STRmix v2.7.0 for *Project #219 – Verification of STRmix v2.7.0 for 3500xL* were deconvoluted using the ProFlex settings in STRmix v2.8.0 and LRs calculated for the true contributors.

The LRs obtained were compared with the original LRs calculated using the current laboratory settings to assess the differences between them.

The number of alleles resolved to ≥ 99% (representing the ability to be uploaded to NCIDD) were also compared.

Figure 6 shows the $\log_{10}$(LR) calculated for the true contributors to the mixtures using both the current and ProFlex settings.

The red data point represents a change in $\log_{10}$(LR) from 11.87 with the current settings to 8.24 with the ProFlex settings. Upon examination of the deconvolution, two loci stood out as having anomalous results.

At D6S1043, the true contributor genotype for C2 (13,19) is given a much higher weighting (95.53% vs 41.12%) with the ProFlex settings than with the current settings. This is likely due to the 19 peak being in a +1 rpt stutter position coupled with the decreased +1 rpt stutter variance obtained with the ProFlex data. See Figure 7.

At CSF1PO, the true contributor genotype for C2 (10,12) is given a lower weighting (0.39% vs 2.22%) with the ProFlex settings than with the current settings. This is likely due to the 6 peak being more heavily weighted as allelic due to the decreased back stutter variance obtained with the ProFlex data. See Figure 8.

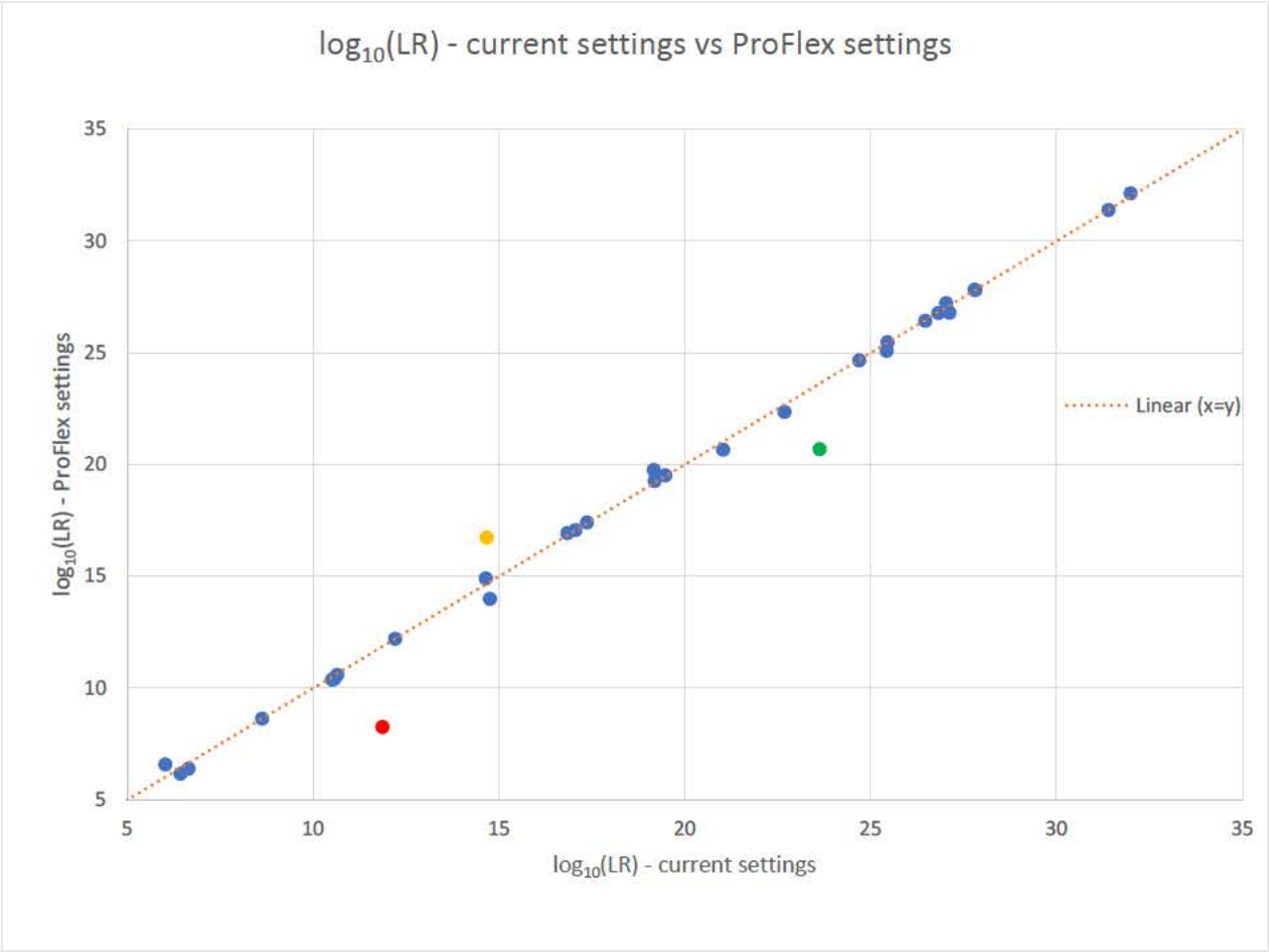


Figure 6 log_{10}(LR) obtained for current settings v ProFlex settings

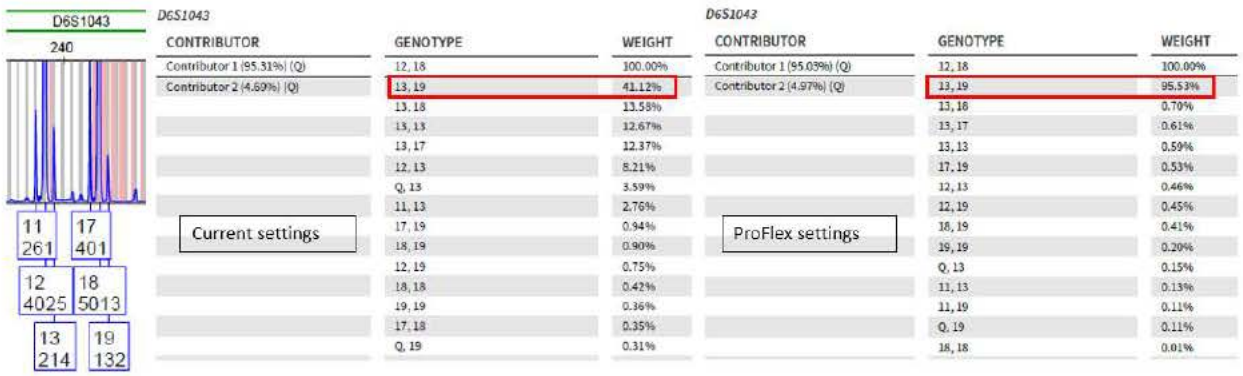
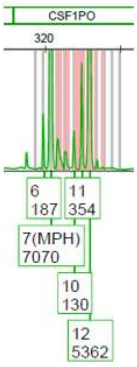


Figure 7 Results obtained for D6S1043 (red data point)



CSF1PO

CONTRIBUTOR	GENOTYPE	WEIGHT
Contributor 1 (95.31%) (Q)	7, 12	100.00%
Contributor 2 (4.69%) (Q)	6, 10	88.17%
	7, 10	2.53%
	10, 10	2.29%
	10, 12	2.22%
	10, 11	1.17%
	Q, 10	0.97%
	6, 7	0.93%
	6, 12	0.78%
	6, 6	0.38%
	Q, 6	0.24%

Current settings

CSF1PO

CONTRIBUTOR	GENOTYPE	WEIGHT
Contributor 1 (95.03%) (Q)	7, 12	100.00%
Contributor 2 (4.97%) (Q)	6, 10	95.84%
	6, 7	0.75%
	6, 12	0.64%
	7, 10	0.62%
	6, 6	0.44%
	10, 10	0.44%
	10, 12	0.39%
	Q, 6	0.30%
	6, 11	0.23%
	10, 11	0.19%

ProFlex settings

Figure 8 Results obtained for CSF1PO (red data point)

The green data point represents a change in $\log_{10}$(LR) from 23.63 with the current settings to 20.67 with the ProFlex settings. Upon examination of the deconvolution, three loci produced lower weightings for the true contributor with the ProFlex settings than with the current settings.

The orange data point represents a change in $\log_{10}$(LR) from 14.67 with the current settings to 16.72 with the ProFlex settings. Upon examination of the deconvolution, it was established that the likely reason for the difference in the LR is the DNA profile itself. This particular DNA profile consisted of four contributors with approximately even ratios. This type of mixed DNA profile is likely to result in a degree of uncertainty within and between deconvolutions and an inability to resolve any contributions.

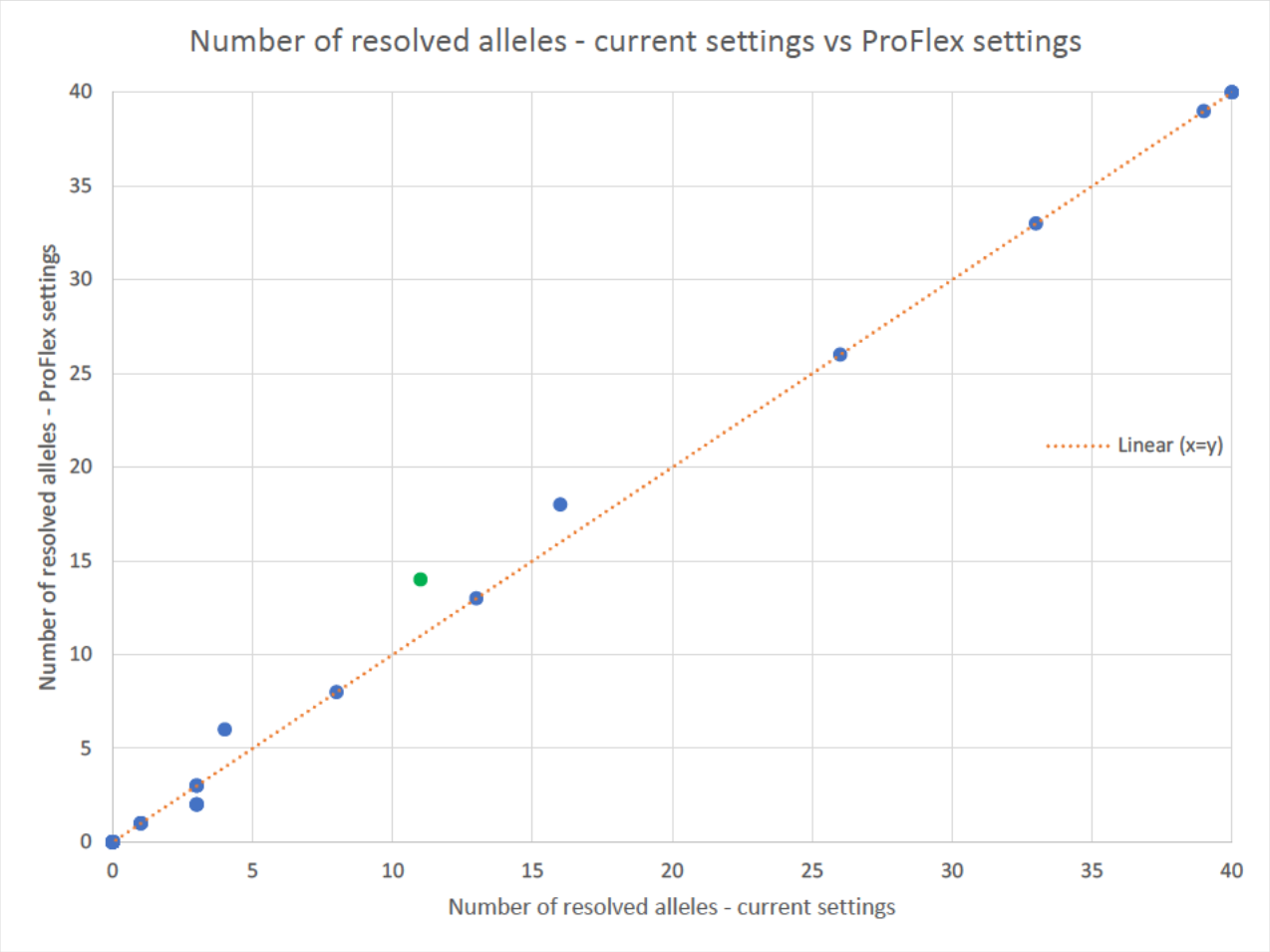


Figure 9 Number of resolved alleles obtained for current settings vs ProFlex settings

Figure 9 shows the number of alleles resolved to ≥ 99% using both the current and ProFlex settings. Two contributors had two additional alleles resolved using the ProFlex settings in comparison to the current settings. The clearest example is the green data point, where the ProFlex settings resolved 14 alleles compared to the current settings, which resolved only 11; this is the difference between being able to load the profile to NCIDD and not. This datum point is the same contribution of DNA as the green datum point in Figure 6 above.

Upon examination of the deconvolutions, one of the loci with less alleles resolved for upload was D2S1338. At D2S1338 the true contributor genotype for C3 (21,23) is given a lower weighting (60.45% vs 92.43%) with the current settings than with the ProFlex settings, additionally the 23 allele was resolved to ≥ 99% with the ProFlex settings. This is likely due to the 21 and 23 alleles being in stutter position and therefore being more heavily weighted as allelic due to the decreased back stutter variance obtained with the ProFlex data. See Figure 10.

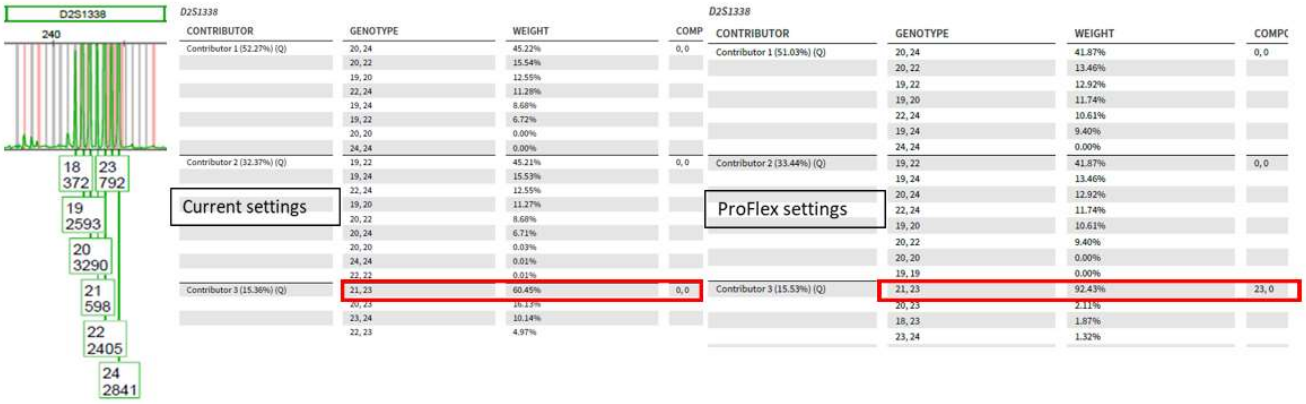


Figure 10 Results obtained for D2S1338 (green data point)

Conclusion

The Model Maker analysis of the data obtained from the ProFlex instruments resulted in similar allele variance parameters to the current settings used within the laboratory but different back stutter, +1 rpt stutter and LSAE variances.

Analysis of a selection of DNA profiles using both the current laboratory settings and the settings determined from the ProFlex data resulted in the following:

- Of the 36 sets of LRs calculated, all but three differed by less than one order of magnitude.
- Of the 3 sets of LRs that differed by more than one order of magnitude, two were affected by the reduction of the -1rpt and +1 rpt stutter variances obtained using the ProFlex data. The remaining difference in LR was due to the profile type.
- The number of alleles resolved to ≥ 99% was comparable between the current and ProFlex settings. The one contribution that differed by 3 alleles and affected the ability to upload the profile to NCIDD was the same contribution that produced a greater than one order of magnitude difference in LRs. Again, the was due to the reduction of the stutter variance obtained using the ProFlex data.

Overall, the data showed that for the most part, the different variance parameters between the current and ProFlex settings has little effect on the LRs of the true contributors and the ability of STRmix to resolve alleles to ≥ 99%. However, the data also showed that there is a risk that the reduced stutter variances may lead to peaks in stutter position being more heavily weighted as allelic, which could impact the final LR and ability to upload a profile to NCIDD.

Recommendation

It is recommended that the outcome of the testing outlined in the report be reviewed by a relevant expert to assess the magnitude and relevance of the risk described above.

Minor Process Change

Stage 2

		Project #:	199
Proposed by :	Emma Caunt, Cassie James	**Date:**	19.10.2022
Title:	Model Maker Report in Response to the COI		
Comment to be added to SOP:	☒ Yes QIS# 35007 ☐ No	**Completed date:**	19.10.2022
Email communication sent:	☒ Yes Team/s Reporting ☐ No	**Completed date:**	17.10.2022
Add to minor change register	☒ Yes	**Completed date:**	19.10.2022

Outline of Minor Change:

Following his provision of evidence at the Commission of Inquiry into Forensic DNA Testing in Queensland, Dr Duncan Taylor recommended that the laboratory determine the Model Maker settings as soon as possible using the data pooled from all ProFlex machines during the ProFlex validation. Those settings should be implemented before any further results are processed in STRmix™. In a telephone conversation with Emma Caunt on 14 October 2022, Dr Taylor further stated that comparisons of LRs generated from deconvolutions run with the laboratory's current settings and the updated settings generated using the ProFlex data be performed.

The report *Model Maker Report in Response to the COI* details the results of the work performed.

On 17 October 2022, Dr Duncan Taylor reviewed the report and concluded that *"for the time being what you have done here all looks good"*.

As a result of this work the laboratory STRmix settings will be updated to reflect the settings calculated in I:\Change Management\Proposal#151 to #200 (completed)\Proposal#199 - Proflex\9.0 Model Maker (2022)\MM Oct 2022\PowerPlex21_3500-MM_2022-10-15-11-32-20

Line Manager Signature:	[redacted] Digitally signed by Peter Culshaw, A/Team Leader, Forensic Reporting & Intelligence Team Date: 2022.10.19 16:12:38 +10'00'	**Comments:** Approved as per the comments by Dr Taylor that this is acceptable for now, but at some stage the ProFlex process requires further validation.
Quality & Projects Signature:	[redacted] Digitally signed by Chelsea Savage Date: 2022.10.20 08:32:48 +10'00'	**Comments:** Approved with the same comments noted above by Peter

Please convert to PDF, e-sign and lock document on completion.

Emma Caunt

From: Taylor, Duncan (AGD) <[redacted]
Sent: Monday, 17 October 2022 10:50 AM
To: Emma Caunt
Cc: Cassandra James; Helen Gregg
Subject: RE: Model Maker report

OFFICIAL

Hi Emma,

I think the work you have carried out gives information that the variance settings are appropriate for use (pending further work).

As you note there are a few samples that have shifted beyond one order of magnitude with respect to the LR. There are a couple of effects that may play into this, one which you have identified in your report as the change in variance distributions. The other factor might be that in the change of STRmix V2.7 to V2.8 is an improvement to the stutter modelling, which was that peaks in stutter positions can be considered stutter or drop-in. I am not sure if this is playing into your results or not. Seeing a low proportion of samples with slightly larger variability in the LR (2 or 3 orders of magnitude) is not unusual between STRmix versions when modelling effects come into play.

There are various investigative avenues you can pursue on this if you wish, such as deconning these samples multiple times to see the level of run-to-run variability, or deconning with drop-in turned off to see whether the effect is mainly the variance change or the modelling change.

However, for the time being what you have done here all looks good.

Kind regards,

Duncan

Dr Duncan Taylor PSM | Chief Scientist - Forensic Statistics
Forensic Science South Australia
21 Divett Place, Adelaide SA 5000
P: (08) [redacted] | F: (08) [redacted]

From: Emma Caunt <[redacted]
Sent: Monday, 17 October 2022 9:13 AM
To: Taylor, Duncan (AGD) <[redacted]
Cc: Cassandra James <[redacted] Helen Gregg <[redacted]
Subject: RE: Model Maker report

OFFICIAL

Great, thank you

From: Taylor, Duncan (AGD) <[redacted]
Sent: Monday, 17 October 2022 8:40 AM
To: Emma Caunt <[redacted]
Cc: Cassandra James <[redacted]
Subject: Re: Model Maker report

OFFICIAL

Hi Emma,

I have a couple of commitments this morning, but I will have a look and get back to you within the next few hours.

Kind regards,

D

Dr Duncan Taylor PSM | Chief Scientist - Forensic Statistics
Forensic Science South Australia
21 Divett Place, Adelaide SA 5000
P: (08) [redacted] | F: (08) [redacted]

From: Emma Caunt <[redacted]
Sent: Monday, 17 October 2022 8:19 AM
To: Taylor, Duncan (AGD) <[redacted]
Cc: Cassandra James <[redacted]
Subject: Model Maker report

Good morning Duncan

Following our conversation on Friday, Cassie and I have prepared the attached report. Would you please read the report and advise whether you think that the calculated variance settings are appropriate for use pending further work on the ProFlex instruments?

Many thanks

Emma

Emma Caunt
Scientist
Forensic DNA Analysis, Police Services Stream, Forensic & Scientific Services
Prevention Division, Queensland Health
p 07 [redacted]
a 39 Kessels Road, Coopers Plains, QLD 4108
e [redacted] **w** www.health.qld.gov.au/fss
Please note that I may be working from a different location during the COVID-19 pandemic. The best contact method is via email.
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Date 19.10.2022

Topic Model Maker. & Lifting pause

Meeting Objectives

Attendees
Emma
cassie
Chelsea
Helen.

Notes

- Minor change is signed off by LMM & quality
- Model Maker repeat
  - Email from Duncan
  - HG email - Yes go.
  - Proposal: Minor change cover page
    refer to repeat
    email from Duncan
    HG email
    sign off by - Peter Culshaw
    - Quality

- Emma to do
- & add to change register dated Mon 17 October.

MINOR CHANGE - HG Laira sign off. ~~Teams~~ microcon discretion email & background.

- Lifting pause as per form

(HG) 19 August, pause. draft memo. 19/10 ? Teams recording.

Action Items

31548

Helen Gregg

From: Rhys Parry
Sent: Friday, 4 November 2022 3:11 PM
To: Luke Ryan; Kylie Rika; Brian McEvoy; Helen Gregg
Cc: Emma Caunt; Peter Culshaw
Subject: RE: Proflex revalidation

Hey All

I have a basic design outlined for a Proflex validation from a while back but would be more than happy to develop it into something concrete for Duncan to review.

Luke – Thanks for your offer. I don't have any data other than that from the original project, which I assume is still in the Project #199 folder. Emma may have some additional data, I'm not sure. However, I would be very wary of trying to use the existing results as they represent only 1 or 2 runs of the thermocyclers, so we could not be certain whether any result obtained was aberrant or within the acceptable range of variation. It will only be after we run the samples multiple times (repeatability/reproducibility) and then run those plates through Modelmaker that we can get an idea of SD values, expected variance, and stutter distributions. I also understand that there might have been some issues with the dilution series samples for modelmaker in the initial study. Even if we could elucidate anything from the existing data, I would be very reluctant to change anything process-wise with regard to the thermocyclers at this stage, as doing so may compromise our understanding of what we are seeing currently in some EPGs/decons once we do get a final answer from a re-validation.

Thanks

From: Luke Ryan <[redacted]gov.au>
Sent: Friday, 4 November 2022 2:01 PM
To: Kylie Rika <[redacted]gov.au>; Rhys Parry <[redacted]gov.au>; Brian McEvoy <[redacted]gov.au>; Helen Gregg <[redacted]gov.au>
Cc: Emma Caunt <[redacted]gov.au>; Peter Culshaw <[redacted]gov.au>
Subject: RE: Proflex revalidation

Hi All
Brian - Perhaps we can include this project in our discussion with Duncan. His advice on how to progress here would be extremely useful as well. Also, some guidance from you/CoI on the priority of this and the LOD project would be useful.

Rhys – We might be able to do some preliminary investigations into the Proflex as well. Are you able to send around the data (or samples) so we can look for a trend, and maybe isolate to one instrument? If we do find something this might be helpful when speaking to Duncan. Let me know what you think?

Thanks
Luke

From: Kylie Rika <[redacted]gov.au>
Sent: Friday, 4 November 2022 1:38 PM
To: Rhys Parry <[redacted]gov.au>; Brian McEvoy <[redacted] Helen Gregg <[redacted]gov.au>; Luke Ryan <[redacted]gov.au>

Cc: Emma Caunt <[redacted]gov.au>; Peter Culshaw <[redacted]gov.au>
Subject: Re: Proflex revalidation

Thanks Rhys

Agree with all of your points below and agree that this is the highest priority given the risk of false inclusion and false exclusion of reference samples.

thanks
Kylie

From: Rhys Parry <[redacted]gov.au>
Sent: Friday, 4 November 2022 1:07 PM
To: Brian McEvoy <[redacted]gov.au>; Helen Gregg <[redacted]gov.au>; Kylie Rika <[redacted]gov.au>; Luke Ryan <[redacted]gov.au>
Cc: Emma Caunt <[redacted]gov.au>; Peter Culshaw <[redacted]gov.au>
Subject: Proflex revalidation

Hi All

As an addition to yesterday's email around quant revalidation, I would like to raise an issue of another project (#199) that I feel needs to be looked at as a matter of high priority.

I think the Proflex machines need revalidating ASAP for a few reasons:

- The Proflex validation was deemed inadequate to demonstrate that each of the Proflex machines are operating similar to one another (pg 67-72 QH Validation Reivew – Duncan TAYLOR).
- There is some limited evidence that one, maybe two, machines are operating outside the range of the rest of the Proflex group.
- This has immediate effects on the profiles we produce and we need to be confident that all amplification processes are operating similarly.
- As we are currently using these machines, we are at present experiencing these potential effects.
- We have seen several examples of profiles not operating as expected with regard to stutter.
- This may be because one of the Proflex machines is causing an unusual number of stutter artefacts or divergent stutter ratios
- There is a significant risk of incorrectly modelling the profile for the given number of contributors to profiles where there are low-level contributors.
- There is also the possibility that we could be assigning the incorrect number of contributors based on high stutter in samples where there is a low-level contribution
- Incorrectly assigning a number of contributors can significantly affect the LRs produced
- There is a risk of false inclusion and false exclusion of reference samples based on the decon result
- Considerable additional time is required by case managers to analyse some of those affect profiles in order to determine why they are not modelling correctly, which in turn limits case manager output
- The longer this is left unassessed, the greater the risk that we will have to revisit samples (and in greater number) in the future if it is found that one (or more) of the machines is operating aberrantly.

Please let me know your thoughts.

Thanks

Rhys Parry
Reporting Scientist

Police Services Stream, Forensic & Scientific Services
Prevention Division, Queensland Health
p (07) 3096 2722
e [redacted] **w** **www.health.qld.gov.au/fss**

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[redacted]

[redacted]

[redacted]

[redacted]

From: Kirsten Scott <[redacted]
Sent: Wednesday, 9 November 2022 1:25 PM
To: FSS.FDNA.Admin <[redacted] Abigail Ryan <[redacted] Adam Kaity <[redacted] Adrian Pippia <[redacted] Alanna Darmanin <[redacted] Alicia Quartermain <[redacted] Allan McNevin <[redacted] Allison Lloyd <[redacted] Amy Cheng <[redacted] Angela Adamson <[redacted] Angelina Keller <[redacted] Anne Finch <[redacted] Belinda Andersen <[redacted] Biljana Micic <[redacted] Carissa Sewell <[redacted] Cassandra James <[redacted] Cathie Allen <[redacted] Cecilia Flanagan <[redacted] Chantal Angus <[redacted] Chelsea Savage <[redacted] Cindy Chang <[redacted] Claire Gallagher <[redacted] Deborah Nicoletti <[redacted] Emelia Ellaby-Hall <[redacted] Emma Caunt <[redacted] Generosa Lundie <[redacted] Helen Gregg <[redacted] Helen Williams <[redacted] Ingrid Moeller <[redacted] Jacqui Wilson <[redacted] Janine Seymour-Murray <[redacted] Josie Entwistle <[redacted] Julie Brooks <[redacted] Justin Howes <[redacted] Kerry-Anne Lancaster <Kerry-[redacted] Kevin Avdic <[redacted] Kim Estreich <[redacted] Kirsten McMahon <[redacted] Kristina Morton <[redacted] Kylie Rika <[redacted] Lai-Wan Le <Lai-[redacted] Lisa Farrelly <[redacted] Luke Ryan <[redacted] Madison GULLIVER <[redacted] Maria Aguilera <[redacted] Matt Ford <[redacted] Matthew Hunt <[redacted] Melissa Cipollone <[redacted] Michael Goodrich <[redacted] Michael Hart <[redacted] Michelle Margetts <[redacted] Naomi French <[redacted] Nicole Roselt <[redacted] Paula Brisotto <[redacted] Penelope Taylor <[redacted] Peter Culshaw <[redacted] Phillip McIndoe <[redacted] Pierre Acedo <[redacted] Rhys Parry <[redacted] Ryu Eba <[redacted] Sandra McKean <[redacted] Sharelle Nydam <[redacted] Sharon Johnstone <[redacted] Stephanie Waiariki <[redacted] Suzanne Sanderson <[redacted] Tara Prowse <[redacted] Tegan Dwyer <[redacted] Thomas Nurthen <[redacted] Valerie Caldwell <[redacted] Vicki Pendlebury-Jones <[redacted] Wendy Harmer <[redacted] Yvonne Connolly <[redacted]
Subject: Seeking staff samples doners for additional work on STRmix Model Maker settings/Proflex instruments

Afternoon All,

As a result an item raised in the commission, additional work on the STRmix Model Maker settings/Proflex instrument validation will be completed.
It would be useful to have approximately 15 staff samples for this work: as the work requires a large quantity of DNA the number of replicates required by the experimental design.
The project team have not yet decided if that will be using a cytobrush to collect cells or a standard mouth swab to collect the sample

If you would be willing to donate buccal cells for this purpose can you please respond to this email, or by voting yes to this email.

I will follow up with willing volunteers.

Thanks for your consideration
Kirsten

Kirsten Scott
Senior Scientist Quality and Projects

Forensic DNA Analysis, Police Services Stream
Prevention Division, Queensland Health

p 07 [redacted]
a 39 Kessels Road, Coopers Plains, QLD 4108
e [redacted] **w** **www.health.qld.gov.au/fss**

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Adam Connolly

From: Helen Gregg <[redacted]>
Sent: Saturday 12 November 2022 07:27 AM
To: Rhys Parry
Subject: RE: Meeting summary - validation of Proflex instruments and STRMix Model Maker settings 10 Nov 2022 @1.30pm

Importance: High

Hi Rhys,

I note action #2 has not been competed – could you please do this ASAP?

Thanks
Helen

From: Helen Gregg <[redacted]>
Sent: Friday, 11 November 2022 10:03 AM
To: Matt Ford <[redacted]> Sharon Johnstone <[redacted]> Paula Brisotto <[redacted]> Peter Culshaw <[redacted]> Brian McEvoy <[redacted]> Kylie Rika <[redacted]> Rhys Parry <[redacted]> Emma Caunt <[redacted]> Kirsten Scott <[redacted]> Cassandra James <[redacted]> Luke Ryan <[redacted]>
Cc: Helen Gregg <[redacted]>
Subject: Meeting summary - validation of Proflex instruments and STRMix Model Maker settings 10 Nov 2022 @1.30pm

Hi everyone,

Please see below my summary and action register from yesterdays meeting. If I have misunderstood anything - especially the due dates - please advise.

General discussion: Please follow change management SOP 22871 (include Kirstens team and ensure proper documentation)

Proflex validation:
Discussion:

- Rhys has looked a historical data, and it appears there may be differences in the machines (2 low, 2 medium, 2 high) but Rhys states the data set is not reliable due to low sample numbers and therefore low statistical power.
- Rhys has drafted an experimental design. Statistical analysis not complicated. Plate reading will be time consuming. Suggested 2 plates per day for analytical. Luke stated this will not be an additional burden for the team.
- Call has already gone out for 15 volunteers. 20 received. Kirsten will review profiles of volunteers for suitability and send selected names to Rhys.
- Aim is to determine if there is significant variability between the machines, using standard settings on all the machines.

- Background - Initial verification used pooled data from all machines. Machines are 12-18 months old. Preventative maintenance is done on all machines and all pass. Duncans report doesn;t state machines are reliable or unreliable, just not determined.

Actions:

1. Kirsten to create project folder (**completed #241)**
2. Rhys to add pdf files of historical data and any analysis re machines being low/medium/high into project folder **(Due 11/11/2022**)
3. Rhys to add draft experimental design to project folder. Include factor in design that will possibly affect repeatability and reproducibility such as time of day machine is run (This needs to be resolved please) **(Due 14/11/2022**)
4. All to review experimental design (**Due Thurs 17/11/2022)**
5. Brian to send experimental design to Duncan for comment (don't need Q&A session) **(Fri 18/11/2022)**

STRMix/Model maker settings

Discussion:

- Emma and Cassie ran truncated experiments (minor change) a few weeks ago. Has now seen a sample where there is 5 orders of magnitude difference between old and new settings. Ran this analysis twice
- Cassie and Emma currently rereading plates at 20RFU to see if this assists
- QPS are not aware of this case at this stage. QPS have been concerned with this. Emma advised to hold off advising QPS until have re-read all plates at 20RFU so can inform better
- Other reporting scientists have not been informed. Cassie stated some are seeing Q/Q (?)
- HG asked whether testing should be paused? If there is criteria that reporting scientists should be on the lookout for? Should there be a lookback on samples issued post modelmaker settingc changed a few weeks ago?
- Emma stated there are criteria that could be written to assist reporting scientists to detect this issue (e.g. minor profile, same height as stutter peaks etc)
- Need to contact BDNA to get list of samples that might be affected.

Actions:

1. Emma and Cassie to finish reading plates at 20 RFU (**due Monday/Tuesday 14 or 15/11/2022)**
2. Emma to set meeting with group to report back on results of 1 (**meet Wednesday 16/11/2022)**
3. Kylie and Emma to document criteria to assist other reporting scientists to detect issue and advise all reporting scientists (d**ue Thursday 10/11/2022**)
4. Helen to request lookback data for samples that could be affected post setting change a few weeks ago (**due Thursday 10/11/2022)**
5. @Kirsten Scott - on thinking about this I think we need to raise an OQI so we capture this investigation and actions. Thoughts? Maybe you raise and Emma be the actioner?

****

****

Helen Gregg

From: Helen Gregg
Sent: Friday, 11 November 2022 10:03 AM
To: Matt Ford; Sharon Johnstone; Paula Brisotto; Peter Culshaw; Brian McEvoy; Kylie Rika; Rhys Parry; Emma Caunt; Kirsten Scott; Cassandra James; Luke Ryan
Cc: Helen Gregg
Subject: Meeting summary - validation of Proflex instruments and STRMix Model Maker settings 10 Nov 2022 @1.30pm

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- Need to contact BDNA to get list of samples that might be affected.

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5. @Kirsten Scott - on thinking about this I think we need to raise an OQI so we capture this investigation and actions. Thoughts? Maybe you raise and Emma be the actioner?

[redacted]

From: Lara Keller <[redacted]
Sent: Monday, 26 September 2022 2:10 PM
To: McCarthy.DuncanJ[OSC] <[redacted] Miller.LarissaN[OSC]
<[redacted] Foxover.StephanP[OSC] <[redacted]
Cc: Helen Gregg <[redacted]
Subject: QPS : Request for permission to use samples

Dear QPS Colleagues

We seek your permission to use 500 suspect samples from our indigenous population to generate a dataset for Y-filer.

This request is urgent as the kits will expire in 2.5 weeks (approx $20,000 worth of kits).

I'm advised that we have asked for QPS approval to use suspect samples in the past, and thus the reason for this request.

The purpose of this data collation is to inform the analysis done in the lab – using an indigenous population from Qld. This would also be used to compare with the database of 700 indigenous samples from South Australia, for differences and similarities. Eventually it is hoped to publish the data, and load to YHRD (Y-STR haplotype reference database). This database is worldwide.

A decision/approval from QPS is required asap, please so we don't have expired kits.

Thanks and Kind Regards
Lara

Lara Keller B App Sc (MLS), Grad Cert Health Mgt, MAIMS, CMgr FIML
A/Executive Director
Forensic and Scientific Services
Prevention Division, Queensland Health
p (07) [redacted] **m** [redacted]
a Administration, Level 1, 39 Kessels Road, Coopers Plains, QLD, 4108
e [redacted] **w** **www.health.qld.gov.au/fss**

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[redacted]

From: Emma Caunt <[redacted]
Sent: Friday, 11 November 2022 1:45 PM
To: Helen Gregg <[redacted] Matt Ford <[redacted] Lara Keller <[redacted] Peter Culshaw <[redacted] Rhys Parry <[redacted]
Subject: Meeting on 28 October

Hi all

These are the notes that Rhys and I took from our meeting on 28 Oct 2022 in relation to the attached email. Sorry for the delay in sending these to you all. Kylie has just let us know that with regards to the microcon project, at this stage, the requirement is for us to produce a discussion paper on the pros and cons of the microcon project vs the elution volume project.

Meeting held on 28 Oct 2022; attendees Helen Gregg, Lara Keller, Matt Ford, Peter Culshaw, Rhys Parry, Emma Caunt

At this meeting Rhys and Emma discussed:
- proposed that one to two people start assessing which historical projects need further work based on a triage system
- Briefly discussed the three main issues raised by experts (LOD, Proflex, Elution/Extraction)

- Discussed in further detail the urgent requirement for the assessment and validation of reduced extraction volumes and the re-validation of the ProFlex instruments. The requirements for these validations were highlighted by the evidence of Dr Bruce Budowle, Prof Linzi Wilson-Wilde and Dr Duncan Taylor in their reports and evidence to the commission of inquiry.
- Emma raised that there may be an issue with the stutter modelling with the newly implemented Model Maker settings and that this needs to be addressed urgently through the ProFlex re-validation.
- Emma and Rhys also raised that the assessment and validation of reduced extraction volumes was more important than the current proposal for the testing of microcon volumes. This is because if the extraction volumes are reduced then there will be no need for the microcon process. Additionally the microcon experiments are likely to be extensive and take a significant period of time when the resources could be placed elsewhere.

The outcome was that Helen, Matt, Peter and Lara would consider what we had proposed and get back to us.

In light of the outcome of the meeting, no further work has been performed on any of these projects (extraction volumes, ProFlex instruments or microcon assessment) until decisions have been made and communicated regarding the way forward.

Thanks

Emma

Emma Caunt
Scientist
Forensic DNA Analysis, Police Services Stream, Forensic & Scientific Services
QPHaSS, Queensland Health
p 07 [redacted]
a 39 Kessels Road, Coopers Plains, QLD 4108
e [redacted] **w** www.health.qld.gov.au/fss
Please note that I may be working from a different location during the COVID-19 pandemic. The best contact method is via email.
Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and future.

Microcon Pros and Cons

Discussion Paper

Microcon vs elution

Allana, Rhys, Emma, Ingrid, Kylie

Background

50 and 100 done in 2008

Rhys – still getting low quants when should be getting high quants. Bruce

1st Maxwell 2011. Promega vs in house 50 vs 100.

Need to do 50 vs 100.

Optimise our elution volume for our setup.

Kylie – approach linzi for her validation report.

Access to BSAG – Stephen Smith. HG to ask and cc all in.

I drive – Kylie to look

Look in Project folder – Rhys project 70 (maxwell). There is some material around elution volume. Also diff lysis project and QIAsymphonies. Changing elution volumes on the QIA symphony requires vendor to make the change. Original MPII project. Not a number 'robotics folder'. Automation project.

Double elution vs higher volume: All to read what actually happened.

Look at recommendations from vendor (Ingrid). Might just need longer incubation step. Once you change the pH the DNA should fall off.

Kylie – focus on elution. Meet Monday next week.

Extraction:

Can elute all the DNA you want, no point if not extracting it in the first place.

Rhys - CTS 0.005 quant for sperm fraction. Seen it in blood

Validations might help to answer this question. Did they do a spike/known, and compare against the known. Extracted conc vs known/expected? And all substrate types. Look at this when reviewing the elution stuff.

Have not measured our uncertainty of measurement.

Quantrio – used NIST standard. Have 10% accuracy on this. Our quants came in consistently lower. Quanttrio validation. Need to look at this. 2015. Or QS5 from

Rhys – need to find commercial suppliers of exact number of cells. Kylie to check with Thomas.

Adam Connolly

From: Angelina Keller <[redacted]
Sent: Thursday 10 November 2022 12:09 PM
To: Chelsea Savage
Cc: Helen Gregg; Peter Culshaw; Kirsten Scott; Matt Ford; Luke Ryan; Allison Lloyd; Paula Brisotto; Rhys Parry; Kristina Morton
Subject: RE: Bone OQI meeting 7/11/22

Hi Chelsea,

I have just had a discussion with Helen and Rhys to say that I am not greatly concerned with a potential DVI from the aircrafts that crashed yesterday as this scenario will involve samples that are very fresh and are a rich source of DNA.

Ultimately it is not my decision as to whether or not we cease processing bones until a new cleaning validation is conducted. I am not concerned about obtaining mixtures from fresh bones / teeth as we have not seen mixtures from fresh bones / teeth. However, as you know I am concerned about obtaining mixtures from compromised bones / teeth. I also understand that a cleaning validation my not change the fact that we are seeing mixtures in such samples.

Pulling together all the bone / teeth emails and information including the OQI is a priority for me right now but I am also juggling my normal duties. I do appreciate your support and understanding regarding this topic. It is a difficult time for all of us but I am confident that we will achieve the best possible outcomes moving forward.

Kind regards,
Angelina

From: Chelsea Savage <[redacted]
Sent: Thursday, 10 November 2022 10:55 AM
To: Angelina Keller <[redacted] Kristina Morton <[redacted] Rhys Parry <[redacted]
Cc: Helen Gregg <[redacted] Peter Culshaw <[redacted] Kirsten Scott <[redacted] Matt Ford <[redacted] Luke Ryan <[redacted] Allison Lloyd <[redacted] Paula Brisotto <[redacted]
Subject: RE: Bone OQI meeting 7/11/22

Hey Angelina,

I think we really need to decide whether we are ceasing bone testing so that we can let the appropriate people know. I took from the meeting on Monday that you were uncomfortable processing bones using the current processes as you are concerned by the mixtures.

As stated previously, Kristina and I believe that the lab clean process is an appropriately validated procedure, and therefore there is no need to cease testing while we investigate.

You mentioned in the meeting that we would be ok to process samples from DVI's. However, didn't we agree that if we stopped processing old bones, then we would have to stop testing all bones (including bones from DVI's) until we were satisfied that we have addressed the issue?

Could you please advise on this ASAP.

Thanks
Chelsea

From: Angelina Keller <[redacted]
Sent: Thursday, 10 November 2022 10:41 AM
To: Kristina Morton <[redacted] Chelsea Savage <[redacted]
Rhys Parry <[redacted]
Cc: Helen Gregg <[redacted] Peter Culshaw <[redacted]
Subject: RE: Bone OQI meeting 7/11/22

Hi Kristina,

Thanks for your offer. It is ok for now but I will let you know if I need help. The good news about a potential DVI is it will involve fresh tissue samples not compromised / aged bone samples.

Kind regards,
Angelina

From: Kristina Morton <[redacted]
Sent: Thursday, 10 November 2022 10:29 AM
To: Chelsea Savage <[redacted] Angelina Keller <[redacted]
Rhys Parry <[redacted]
Subject: RE: Bone OQI meeting 7/11/22

Hi Angelina,

What specific documents are you working through and would you like any help with this?

Given the aviation incident that occurred yesterday I think it is a matter of priority to provide an update to Helen if you're recommending cessation of bone processing (from my original email) as QPS may need to be informed of this if management agree. And if this is the recommendation and management accept, a team will need to be put together to begin a validation ASAP. Is this still the recommendation you're wanting to provide?

Thanks,
Kristina

From: Chelsea Savage <[redacted]
Sent: Thursday, 10 November 2022 8:26 AM
To: Angelina Keller <[redacted] Kristina Morton <[redacted]
Rhys Parry <[redacted]
Subject: RE: Bone OQI meeting 7/11/22

Thanks Angelina,

I am still a little confused with what samples you are concerned about.

Could you please give me a list barcodes with possible mixtures, and exclude all other barcodes for the time being? I don't want to miss any in my investigation 😊

Thanks
Chelsea

From: Angelina Keller <[redacted]
Sent: Wednesday, 9 November 2022 2:30 PM
To: Chelsea Savage <[redacted] Kristina Morton <[redacted]

Rhys Parry <[redacted]
Subject: RE: Bone OQI meeting 7/11/22

Hi all,

I've updated my version of the bone spreadsheet and added it to the bone OQI folder for cross checking / reference. Currently, there are no additional bones waiting to be crushed for DNA analysis (one has just gone away due to the coroner utilising dental identification). There are two outstanding cases, with results pending for 3 x bones.

Another meeting the week of the 21 November suits me.

Meanwhile I'm working through the rest of the documentation and will check in again soon.

Kind regards,
Angelina

From: Chelsea Savage <[redacted]
Sent: Wednesday, 9 November 2022 7:20 AM
To: Kristina Morton <[redacted] Angelina Keller <[redacted]
Rhys Parry <[redacted]
Subject: RE: Bone OQI meeting 7/11/22

Thanks Kristina!! I am getting started as we speak 😊

From: Kristina Morton <[redacted]
Sent: Wednesday, 9 November 2022 6:30 AM
To: Chelsea Savage <[redacted] Angelina Keller <[redacted]
Rhys Parry <[redacted]
Subject: RE: Bone OQI meeting 7/11/22

That week works with me if it works with Angelina and Rhys 😊

Chelsea, I have finished populating the spreadsheet with environmental samples from benches/instruments within the bone room collected from 2019 to now.

Thanks,
Kristina

From: Chelsea Savage <[redacted]
Sent: Tuesday, 8 November 2022 11:52 AM
To: Kristina Morton <[redacted] Angelina Keller <[redacted]
Rhys Parry <[redacted]
Subject: RE: Bone OQI meeting 7/11/22

Amazing, thanks Kristina.

I will start looking at the spreadsheet tomorrow (I am plate reading today). Angelina – could you please have a look through this spreadsheet to ensure it is not missing anything (or upload your spreadsheet to the folder and I can check?)

I think I will need until the end of next week to properly record all extra peaks and investigate. Should we book a meeting for the week starting the 21st November?

Thanks

Chelsea

From: Kristina Morton <[redacted]
Sent: Tuesday, 8 November 2022 11:35 AM
To: Angelina Keller <[redacted] Rhys Parry <[redacted] Chelsea Savage <[redacted]
Subject: RE: Bone OQI meeting 7/11/22

Thanks Angelina, good luck with your evidence!

Chelsea, I have finished populating the spreadsheet saved to the OQI folder with the aliquots, controls, batch ID and batch neg extraction barcodes. The basic data is pulled from the bone log spreadsheet, so I am unsure if anything is missing between that and Angelina's data. I now begin logging all the enviro samples from 2019 to 2022 that are relevant to the bone room, I plan to have this done by tomorrow.

Thanks,
Kristina

From: Angelina Keller <[redacted]
Sent: Tuesday, 8 November 2022 8:44 AM
To: Kristina Morton <[redacted] Rhys Parry <[redacted] Chelsea Savage <[redacted]
Subject: RE: Bone OQI meeting 7/11/22

Hi Kristina,

I have court evidence today so I have to focus my energy elsewhere today but as soon as this is done, I will come back to you all.

Kind regards,
Angelina

From: Kristina Morton <[redacted]
Sent: Tuesday, 8 November 2022 8:08 AM
To: Angelina Keller <[redacted] Rhys Parry <[redacted] Chelsea Savage <[redacted]
Subject: Bone OQI meeting 7/11/22

Hi all,

Just wanted to recap the actions moving forward from yesterday's meeting so we know where we are at, we didn't have enough time to organise the next catch up – Chelsea how much time do you think you'll need? Angelina and Rhys is there anything additional that you would like to get done before we meet again?

Actions:

1. AK to save personal excel spreadsheet to shared folder so CKS can begin work.
2. CKS to work on quality searching and KJM to populate spreadsheet with barcodes of bone controls, environmental samples and extraction negative controls from bone batches for all bone sampled from 2019 to now.

Angelina and/or Rhys, I also wanted to confirm based on the conversation yesterday that you would like to recommend ceasing of bone examinations until a cleaning process is validated? Chelsea and I are of the belief that the process change to bleach/ethanol is within an approved lab cleaning process that we use in ER and Analytical

currently and therefore there would not be a need to cease processing. But we are happy if you'd like to send a recommendation to Helen Gregg for management to consider while we continue with the investigation.

I have also moved the OQI folder for anything related to the OQI to be saved, to the correct location: I:\Adverse Events DNA Analysis\OQI 56724 - Bones

If there is anything I have missed, please let me know.

Thanks,
Kristina

Kristina Morton
Scientist – Evidence Recovery Team

Forensic DNA Analysis, Forensic and Scientific Services
Prevention Division, Queensland Health

p 07 [redacted]
e [redacted] w www.health.qld.gov.au/fss

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and emerging.

Kristina Bane. Date: Page: 11.11.2022

- At meeting last week, now don't think its the chisels.
- Angelina wants to revert back to tergazyme (cleaning) but this was validated on 3130 (CE machine)
- 3130 not around anymore. Kristina concerned as it is now 3500 & QIAsymphony
Not resolved
- Kristina suggested pause beneg testing. Angelina stated not her decision to make. Rhys & Angelina stated happy to do DVI.
- Group agreed that recommendation would be pause until cleaning protocol & VV validated
- Kristina sent email of actions moving forward (I can cc'd eventually)
- Aircraft incident brought up as example, Kristina was not saying it was DVI example of what to do.
- Chelsea wrote email to
- Angelina wrote to me, Peter,
- Kristina cc'd everyone.
- Kristina frustrated with lack of direction from Angelina
- Spreadsheet now in folder. Chelsea requested barcodes, not provided by Angelina. Case Files provided
- 2019 Tergazyme, then QIAsymphony. Then 3500, all cases highlighted by Chelsea are post 3500. Angelina believes

Date: . .
Page:

it is tengagyme.
-Kristina & Chelsea have started data quality but need 6 loci, only have 1-2 loci.
-raised in August & still no progress.

Report for QIS OQI as of 15/11/2022 2:13:31 PM

Report for QIS OQI -

56724 Mixtures in Bones

OQI Details

Status	Investigation
Subject	Multiple cases involving bones have generated mixed DNA profiles.
Source of OQI	Internal Problem
Date Identified	17/06/2022

OQI Creator Contact Details

Creator	Angelina KELLER
Organisational Unit/s	Reporting 2
Service/s	Forensic and Scientific Service
Site Location/s	Coopers Plains

Investigator/Actioner Contact Details

Actioner	Allison LLOYD, Angelina KELLER
Organisational Unit/s	Reporting 2
Service/s	Forensic and Scientific Service
Site Location/s	Coopers Plains

Investigation Details

No Investigations found

Action Details

No Actions found

Task Details

No Tasks found

Follow-up And Approval

No Follow Up and Approval Information Available for this OQI

Associations

No Associations found

Records

No Records found

COMMISSION OF INQUIRY INTO FORENSIC DNA TESTING

IN QUEENSLAND

Section 5(1)(d) of the *Commissions of Inquiry Act 1950*

FIFTH STATEMENT OF HELEN GREGG

I, **Helen Gregg,** of 39 Kessels Road Coopers Plains, do solemnly and sincerely declare that:

1. I have previously:

   a) provided three statements in this Commission of Inquiry into Forensic DNA Testing in Queensland (**Commission of Inquiry**) dated 16 September 2022 in response to Notice 2022/12, 26 October 2022 in response to 2022/00294, 3 November 2022 to supplement my previous evidence and provide clarification in relation to some aspects of that evidence (**Third Statement**) and 16 November 2022 in response to Notice 2022/00321 (**Fourth Statement**); and

   b) given oral evidence in the Commission of Inquiry on 4 October 2022.

2. By email dated 7 November 2022, I was requested by the Commission to provide a further statement responsive to certain questions in respect of my evidence at paragraph 24 of my Third Statement.

3. Paragraph 24 of my Third Statement provides:

   '24. I clarify that:

   a) the core duties and responsibility which I perform as part of the quality management function of my role (as outlined above at paragraph 12) are pro-active. For example, I am required to:

   (i) ensure each laboratory complies with relevant certification, accreditation, regulatory requirements and organisation performance benchmarks;

[redacted] [redacted]

....

Helen Gregg Witness

ME_204561651_3

(ii) develop and deliver training on quality and business improvement matters; and

(iii) manage the learning management system to deliver training for FSS.

b) I have been involved in a number of initiatives and projects at FSS which are of a proactive nature, including in relation to the implementation of certain procedures, instruments and systems within FSS, including the implementation of:

(i) a fluke oil bath for performing temperature verifications;

(ii) an online system for contractor management;

(iii) respirator/mask fit testing for COVID-19 and safe mortuary practices; and

(iv) an infection control system in FSS for ensuring mandatory vaccination compliance and ongoing health surveillance.

c) when I referred to having a 'reactive' style, I was referring to the aspects of my role which require me to provide expert advice, consultation and direction on quality and compliance issues (as referred to above at paragraph 12.c). As mentioned above, I do not have day-to-day oversight over quality issues which arise within the laboratories (including FDNA). I therefore rely on these matters to be escalated to me, at which point I provide my advice and consultation. In this sense, I consider my duties and responsibilities in addressing and advising on these quality issues as 'reactive'.'

Question 1 - For paragraph 24(a)(ii) and (iii), what has been done on those topics by Ms Gregg for Forensic DNA specifically in the last 5 years.

General comments

4. As explained in my Third Statement, the broad remit of my role requires me to lead, maintain and improve the quality management function across the entirety of FSS.[1]

[1] Statement of H [redacted] dated 3 November 2022, [11]-[22].

[redacted]

Helen Gregg Witness

ME_204561651_3

5. Therefore my role with respect to developing and delivering training on quality and business improvement matters and the learning management system is necessarily broad and organisationally focused. This is consistent with my position description and the quality related training and initiatives which I discuss below.[2]

6. I am therefore not responsible for developing training on quality and business improvement matters for individual areas of FSS. This would usually be the responsibility of the individual FSS area. For example, a request for support for this type of training would likely come from the Managing Scientist, the Team Leader or the staff member in the particular team who has quality related duties and responsibilities (for example, Dr Kirsten Scott within FDNA). I have never received a request from any staff member in FDNA to assist with developing or delivering training on quality or business improvement matters or the learning management system.

7. All FSS staff can access quality training modules via iLearn (the learning management system used by Queensland Health). As explained from paragraph 9 below, I have predominately developed this training content and continue to review and update it. Once a staff member has enrolled in any of the Quality training modules, the content remains available for them to review on iLearn. A screenshot of the Quality page on iLearn is attached and marked to this statement as **HG-106**.

8. To ensure FSS staff were aware of the Quality training modules, I would regularly issue email communications, for example, from the FSS training email address or through the FSS monthly newsletter. A bundle of the usual types of communications I would send to staff is attached and marked to this statement as **HG-107**.

Developing and delivering training on quality and business improvement matters (24(a)(ii))

9. In respect of developing and delivering training on quality and business improvement matters, I have developed the following training for all FSS staff members (among other training modules):

   a) internal audit training – I developed this training in around 2008;

   b) root cause analysis training – I developed this training in 2021;

[2] Statement of Hele[redacted]ted 3 November 2022, Exhibit HG-77, Role description of Quality Manager.

[redacted]

Helen Gregg Witness

ME_204561651_3

c) training staff in compliance with standard ISO 17025 Testing and calibration laboratories – I developed this training in around 2010;

d) release of results training – I developed this training in 2009; and

e) QIS Basics, Risk Management and Quality for Managers (which are all separate modules) – I developed these modules in 2021.

10. In 2020 to 2021, I undertook a detailed review of all Quality training modules (including the modules mentioned above) when these were migrated to iLearn.

11. Except where I have stated otherwise, it is not mandatory for FSS staff to complete quality related training. I do not have the authority to make quality training mandatory across FSS or within individual teams, however Team Leaders could mandate training within their team if they wished.

Internal audit training

12. I developed the training material for internal audit training in around 2008 and it is available to all FSS staff via iLearn. I reviewed the training material every 6 months when it was delivered face to face and carried out a major update in 2020 when this training was moved to iLearn, Queensland Health's learning management system.

13. The training provides evidence of the required knowledge to be an internal auditor and mandatory for staff members who are required to undertake internal audits. It is a one day course with a written and practical component. It was originally offered every 6 months face-to-face, though I transitioned some components of this training to online since the COVID-19 pandemic. After the trainee has completed the written component training, they are required to undertake a competency assessment in which they undertake one or two supervised audits with a coach observing (which is Dr Kirsten Scott if the staff member is in FDNA or myself if they are from another area of the FSS) until the coach is confident of the staff member's competency.

14. The online training material for internal audit training is attached and marked to this statement as **HG-108**.

[redacted] [redacted]

Helen Gregg Witness

15. This training has been provided to 50 staff across FSS since 2017, including 7 in FDNA who are marked in red. An excel spreadsheet exported from our online learning management system recording this is attached to this statement and marked **HG-109**.

Root cause analysis training

16. I developed root cause analysis training in around 2021 in response to insufficiently investigated OQIs and the use of the term 'unintended human error' which I observed had been noted in my regular reviews of OQIs. This review is required to be undertaken annually under ISO 17025 however I undertake monthly reviews of OQIs raised for the purposes of trend analysis (though this is not specifically required under ISO 17025). A sample of the monthly reports I prepared for March, April and May 2022 and the annual quality management review conducted in 2021 is attached to this statement and marked **HG-110**. I believe this another example of the proactive steps I take to manage quality across all of FSS (including FDNA).

17. All staff at FSS are invited to undertake this training and it is available via iLearn. The training module instructs FSS staff on the appropriate methods for determining the root cause of an issue that has arisen within a laboratory environment and how to accurately report the root cause in an OQI.

18. The online training material for root cause training is attached and marked to this statement as **HG-111**.

19. Our root cause analysis system currently has 117 users enrolled to undertake the training and 26 staff have completed the required training, including 7 FDNA staff who are marked in red. An excel spreadsheet recording this is attached to this statement and marked **HG-112**.

Training in relation to compliance with ISO 17025

20. I have developed training in relation to compliance with standard ISO 17025 – Testing and calibration laboratories in around 2010. I reviewed the training material every 6 months when it was delivered face to face and carried out a major update in 2020 when this training was moved to iLearn, Queensland Health's learning management system. All staff across FSS are invited to undertake this training and it is available via iLearn.

[redacted] [redacted]

Helen Gregg Witness

21. The purpose of the training is to provide employees with an understanding of the requirements in ISO 17025. This training was delivered twice a year face to face, available to all FSS staff, and was transitioned to an online course due to the COVID-19 pandemic, where it available to staff to complete at any time.

22. The online training material in relation to compliance with ISO 17025 is attached and marked to this statement as **HG-113**.

23. The training has been completed by 51 FSS staff, including 5 FDNA staff since 2017. An excel spreadsheet exported from our online learning management system recording this is attached to this statement and marked **HG-114**.

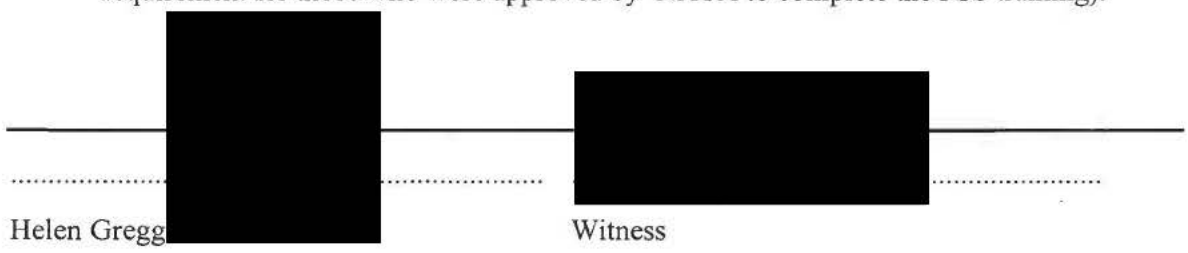
Release of results training

24. I am responsible for ensuring that all FSS staff involved in the release of laboratory results complete the release of results training module. I developed this training in around 2009 after NATA discontinued its process of administering authorisations to allow scientists to release or report the results of their analysis to clients.

25. The training module instructs scientists on the correct process for releasing results to clients and is available to all FSS staff on iLearn. This training module is mandatory for FSS staff who are required to release or report results to clients in accordance with NATA requirements and is available via iLearn. The SOP which documents this requirement which I prepared is attached and marked to this statement as **HG-115**.

26. The training material in relation to release of results training is difficult to extract from iLearn however a screen capture of some aspects of this training is attached and marked to this statement as **HG-116**.

27. This training has been completed by 97 FSS staff, including 4 FDNA staff who are marked in red. An excel spreadsheet exported from our online learning management recording this is attached to this statement and marked **HG-117**. A smaller amount of people have undertaken the training more recently as all staff members who completed this training under the NATA regime have been 'grandfathered' (i.e. there is no requirement for those who were approved by NATA to complete the FSS training).



Helen Gregg [redacted] Witness

QIS Basics, Risk Management and Quality for Managers modules

28. I developed these training modules in around 2021 and they are available to all FSS staff via iLearn.

29. The training modules instruct FSS staff about expectations that managers are subject to in the performance of their roles in relation to matters such as managing staff quality responsibilities in their laboratory. The training modules also instruct them on how to use the QIS system.

30. A bundle of the training material in relation to QIS basics, risk management and quality for managers is attached and marked to this statement as **HG-118**.

31. The QIS basics training has been completed by 249 FSS staff, including 26 FDNA staff. The risk management training has been completed by 3 FSS staff. The quality for managers training has been completed by 13 FSS staff. An excel spreadsheet exported from our online learning management system recording this is attached to this statement and marked **HG-119**.

Managing the learning management system to deliver training for FSS (24(a)(iii))

32. The learning management system used at Queensland Health is iLearn which all of FSS is required to use.

33. As iLearn is used throughout Queensland Health, the Queensland Health HR team is responsible for developing the training material. However, I am responsible for advocating the use of iLearn across FSS, providing resources to support the maximum use of iLearn, supporting training in the use of iLearn and attending learning and development meetings to keep abreast of any software updates to iLearn. For example, leveraging the benefits of iLearn is a component of the Scientific Support Services' operational plan and learning objectives for 2022. We have achieved the majority of the action items for this year. A copy of the plan is attached to this statement and marked **HG-119A**.

34. While the iLearn platform is suitable for mandatory training (for example, Code of Conduct training, Fire and Emergency Evacuation training), I do not believe it is suitable for laboratory competency-based training.

[redacted] [redacted]

Helen Gregg Witness

35. Competency-based training is practical 'on the job' training to assess competence in various skills. All FSS laboratories require competency based training, which begins immediately after induction in the FSS. In FDNA, for example, senior scientists are appointed as trainers for new staff to train them in core skills including amplification, plate reading, extraction and profile analysis.

36. In iLearn it is difficult to capture the training inputs and outputs for competency based training. For example, it is difficult to capture how many samples a staff member processed/the sample numbers used, to extract training data and results from iLearn and to display a useful training profile.

37. As a result, the competency-based aspects of the training were recorded on paper only (including the training content and the assessment tasks completed), which obviously creates issues, including in relation to keeping track of when refresher training is needed and the line managers (who maintained these records) would only have visibility over competency records creating compliance issues.

38. Training records are required to be kept for 40 years after the staff member has ceased employment. Paper training records also pose a storage issue. There are also non-compliance issues with authorising staff (e.g. trainers and line managers) not signing the paper training records. I believed an electronic system would remove both these problems.

39. In response to the issues described above from paragraph 34, in June 2021, I prepared a business case for a bespoke online management system for the FSS to replace the use for iLearn for competency training. A copy of the business case I prepared (which was endorsed by the Executive Director on 13 July 2021) is attached and marked to this statement as **HG-120**.

40. I also prepared a briefing note to support the business case. A copy of this briefing note is attached and marked to this statement as **HG-121**.

41. This business case was rejected by Queensland Health (HR branch) on 17 January 2022. A copy of the relevant emails in relation to the request and rejection of this business case is attached and marked to this statement as **HG-122**.

[redacted] [redacted]

Helen Gregg Witness

42. Despite the rejection of my business case, I took steps to implement workarounds in the use of iLearn for competency based training despite the inadequacies I have explained above. For example, I moved all non-competency based training to iLearn as well as incorporating to the best I could competency based training and assessment records (however managers have been resistant to this because iLearn is too cumbersome).

43. I have continued to advocate for the FSS to invest in a bespoke online learning management system. I have more recently agitated the business case with Queensland Health and it has now been granted 'in-principle' approval. A number of required approvals have been obtained (e.g. privacy and cybersecurity) and the procurement process has commenced (i.e. formal comparison of available LMS platforms). I hope that once this is completed I will get formal approval to procure.

Question 2 - For paragraph 24(b):

1. **when those things were done;**
2. **which part of FSS they were in relation to;**
3. **what triggered the consideration of implementing them.**

Implementation of the project a fluke oil bath for performing temperature verifications (24(b)(i))

44. In 2016, I received a suggestion to implement fluke oil baths for performing temperature verifications in 2016 (which are performed in all areas of FSS) from a scientist in the Public and Environmental Health stream. The suggestion was triggered by frustrations concerning the reliability of the use of ice slurry (created by mixing water with ice until the mixture is cloudy, and when made properly, the mixture is at a temperature of 0°C) for checking thermometer accuracy.

45. In response I prepared a concept brief for minor capital for Executive Director approval. The brief was prepared to support the purchase of Fluke Microbath 7103-TR-256. A copy of this brief is attached to this statement and marked **HG-123**.

46. I also facilitated and oversaw a validation process in relation to the use of fluke oil bath. A copy of my validation report dated 14 February 2017 is attached to this statement and marked **HG-124**. The validation undertaken indicated that this was a true methodology for measuring true temperature.

[redacted] [redacted]

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Helen Gregg Witness

47. After these steps were taken, I decided to formally implement fluke oil bath in 2017 and it is now used for performing temperature verifications in all laboratories within the FSS.

48. As a result of the new process, testing laboratories at FSS now use the fluke oil bath, which can be set at any temperature, is stable, and can allow thermometers to be checked for accuracy over a variety of temperatures instead of just 0°C.

Implementation of an online system for contractor management (24(b)(ii))

49. The implementation of this process was triggered by my observations of the inefficiencies of the contractor induction process at FSS. A major inefficiency that I identified was that incoming contractors had to attend face-to-face inductions (including in relation to infection control, vaccinations and other matters) at certain times requiring various FSS teams to coordinate this process and contractors were required to complete two inductions using two online systems (one for Queensland Health and one for the FSS).

50. In or around April to July 2020, I implemented an online contractor management system within the existing iLearn platform to address these inefficiencies. The iLearn system ensures that contract staff entering FSS have completed the mandatory training required to access the FSS premises which can be completed online prior to attending the premises. The FSS' online system for contractor management is now in place and used across FSS. A copy of the online induction e-learning course for contractors is attached to this statement and marked **HG-125**.

51. In around August 2021, I prepared a business case to implement an off-the-shelf service provider management system to further improve the induction process. A copy of the business case dated August 2021 is attached to this statement and marked **HG-126**. The business case was rejected by FSS management for financial reasons.

52. In addition to these changes, I have also developed the following to further improve contractor management:

    a) I have developed a resource for contractors to access which provides all relevant induction information (including vaccination requirements, criminal history check, site specific induction and fire and evacuation program assessment) which they are

[redacted] [redacted]

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Helen Gregg Witness

required to complete before entry to FSS in the one spot. A screenshot of this resource is attached to this statement and marked **HG-127**.

b) I have developed a Standard of Procedure in relation to contract management (FSS procedure for work area organised service providers/contractors) in February 2021. A copy of this SOP is attached to this statement and marked **HG-128**.

Implementation of respirator/mask fit testing for COVID-19 and safe mortuary practices (24(b)(iii))

53. I implemented the FSS' respirator/mask fit testing procedure in October 2021.

54. The implementation of this process was triggered by my observations that the existing fit tests (qualitative fit test) were:

a) subjective because they relied on the user to determine if they could smell a sweet or bitter substance while wearing a mask and performing a series of exercises; and

b) time-consuming because the above process took approximately 20-30 minutes to complete.

55. In September 2021, I prepared a business case to seek capital funding for a quantitative fit test machine to perform quantitative fit tests on masks. This machine would measure exactly how much air is leaking through a mask seal (as opposed to relying on the subjective views of the user) and took a much faster time to complete. A copy of the business case dated August 2021 is attached to this statement and marked **HG-129**. I also prepared a briefing note to support the business case. A copy of this briefing note is attached to this statement and marked as **HG-130**. This business case was approved by the Executive Director.

56. The FSS' respirator/mask fit testing procedure is now used in all FSS laboratories, and is particularly useful in the mortuary, microbiology, virology and for FDNA when processing bones to protect staff from airborne biological material.

Implementation of an infection control system in FSS for ensuring mandatory vaccination compliance and ongoing health surveillance (24(b)(iv))

57. I implemented the FSS' infection control system in June 2020 throughout FSS.

[redacted] [redacted]

Helen Gregg Witness

58. The implementation of this system was triggered by concerns arising out of the loss of the infection control team (which was closed during the Newman Government's term) and my subsequent observations that FSS' vaccine preventable disease records system was not being maintained and needed updating.

59. The system is run through Microsoft OneNote for new starters at FSS and requires completion of information about mandatory vaccination and includes an action/bring up list of things to complete (including annual mask fitting, follow-up vaccinations, health surveillance reminders).

60. The system is key to ensuring FSS staff are kept safe when performing their roles, with up to date vaccinations and regular health checks for those working in high risk laboratories. It is also instrumental in showing FSS remains compliant to relevant OHS requirements.

61. A screenshot of this system is attached to this statement and marked **HG-131.**

All the facts and circumstances declared in my statement, are within my own knowledge and belief, except for the facts and circumstances declared from information only, and where applicable, my means of knowledge and sources of information are contained in this statement.

I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the *Oaths Act 1867.*

TAKEN AND DECLARED before me at Brisbane in the State of Queensland this 22nd day of November 2022

[redacted] ..... [redacted] .....

Helen Gregg Witness

....

Helen Gregg Witness

SCHEDULE OF EXHIBITS

Question	Exhibit	Name
1	**HG-106**	Screenshot of iLearn FSS Quality training page
1	**HG-107**	Bundle of communications from Helen Gregg to various FSS staff regarding training
1	**HG-108**	Online training material for FSS internal audit training
1	**HG-109**	Excel spreadsheet recording staff completion of internal auditor training
1	**HG-110**	Bundle of monthly OQI review reports dated March, April and May 2022 and annual quality management review report in 2021
1	**HG-111**	Online training material for FSS root cause analysis training
1	**HG-112**	Excel spreadsheet recording staff completion of root cause analysis training
1	**HG-113**	Online training material for ISO 17025 compliance training
1	**HG-114**	Excel spreadsheet recording staff completion of ISO 17025 compliance training
1	**HG-115**	FSS SOP - Procedure for authorising staff to release results for dated 2 March 2021
1	**HG-116**	Online training material for release of results training
1	**HG-117**	Excel spreadsheet recording staff completion of release of results training
1	**HG-118**	Bundle of online training material for QIS basics, risk management and quality for managers training
1	**HG-119**	Excel spreadsheet recording staff completion of QIS basics, risk management and quality for managers training
1	**HG-119A**	Queensland Health Operational Plan 2022 – Scientific Support
1	**HG-120**	Learning Management System Implementation Project business case dated June 2021
1	**HG-121**	Briefing note to Professor Keith McNeil, Acting Director-General, FSS and Chief Medical Officer dated 14 December 2021
1	**HG-122**	Email chain regarding business case dated 4 January to 25 February 2022
2	**HG-123**	Briefing note to Paul Csoban (Executive Director, FSS) approved on 29 February 2016
2	**HG-124**	Validation report regarding in-house calibrations using Fluke oilbath dated 14 February 2017
2	**HG-125**	Online contract management induction e-learning course
2	**HG-126**	Service Provider Management System Implementation Project Business Case dated August 2021
2	**HG-127**	FSS Service Provider Work Health and Safety and Site-Specific Induction
2	**HG-128**	Standard of Procedure regarding FSS procedure for work area organised service dated 7 April 2022
2	**HG-129**	Sustaining Capital Program – Purchase of quantitative fit testing equipment Business Case approved by Malcolm Stringer (Acting

[redacted] .... [redacted] .....

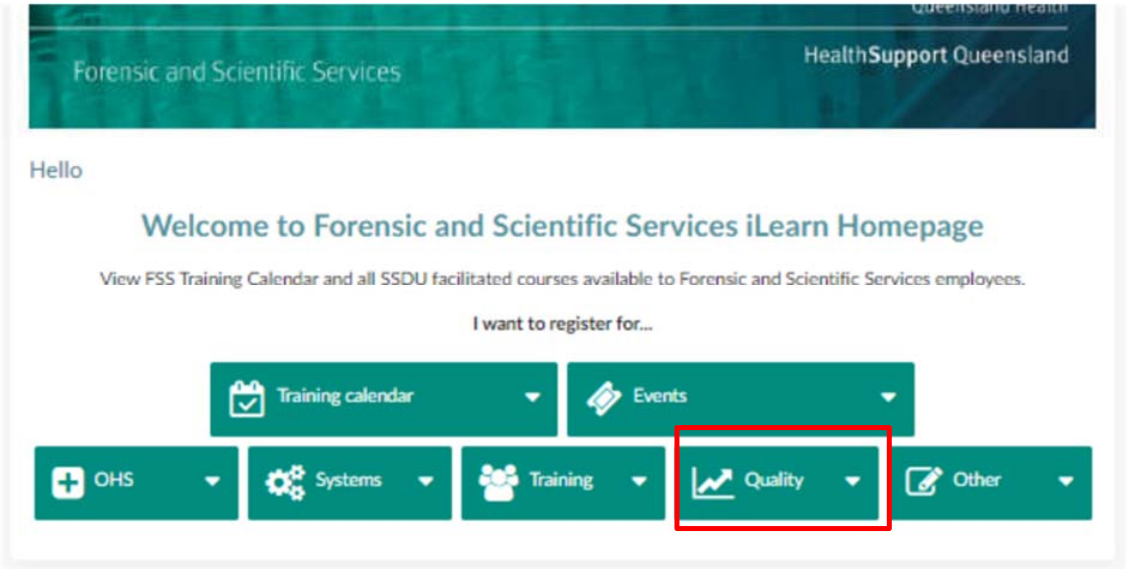
Helen Gregg Witness

		General Manager, FSS) on 13 October 2021
2	**HG-130**	Briefing note to Malcolm Stringer (Acting General Manager, FSS) approved on 13 October 2021
2	**HG-131**	Screenshot of FSS infection control system

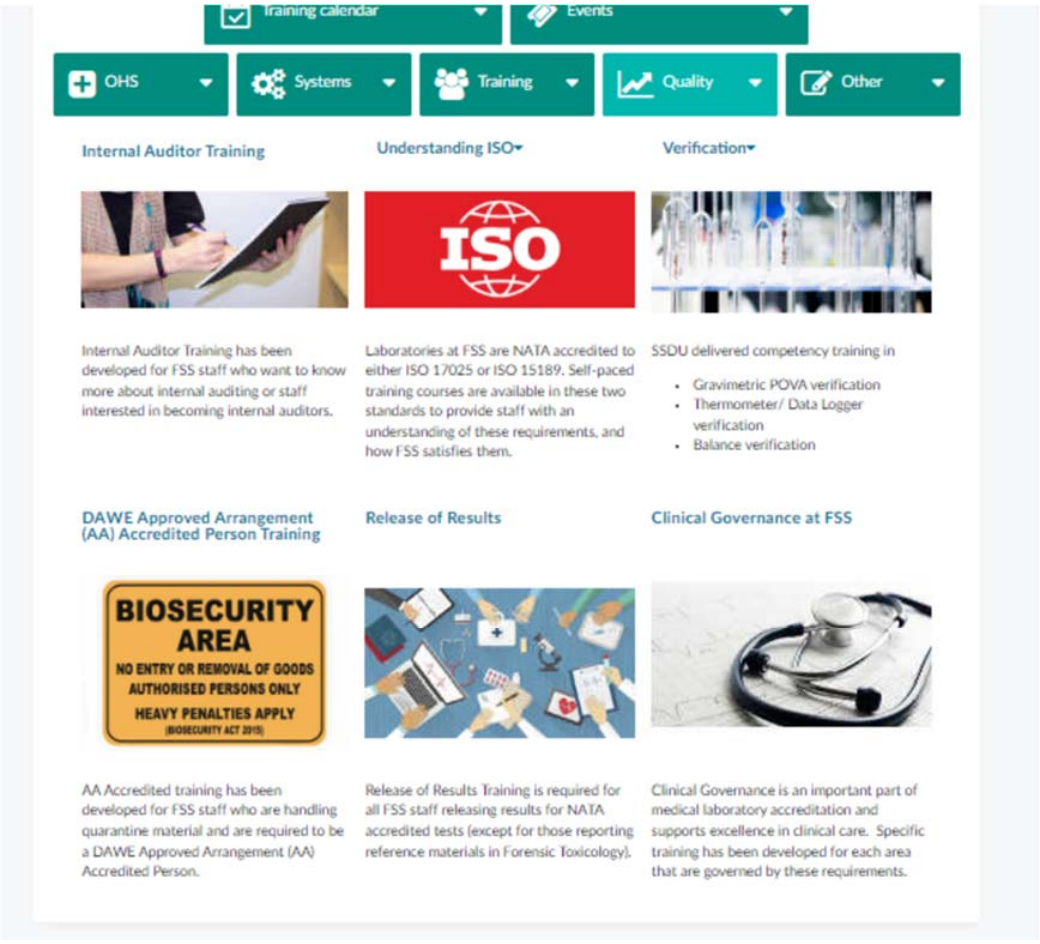
Helen Gregg Witness

ME_204561651_3

FSS Home Page



Quality training



From: FSS Training
Sent: Thursday 1 September 2022 08:56:17 AM
To: Helen Gregg
Subject: SSDU Monthly Newsletter - September 2022

Having trouble viewing this email? View Online

Queensland Health

Forensic and Scientific Services

G6 Mandatory Training Spotlight

This month, we're striving for 100% compliance on **Fraud Control Awareness**.

64 staff members are overdue for this training.

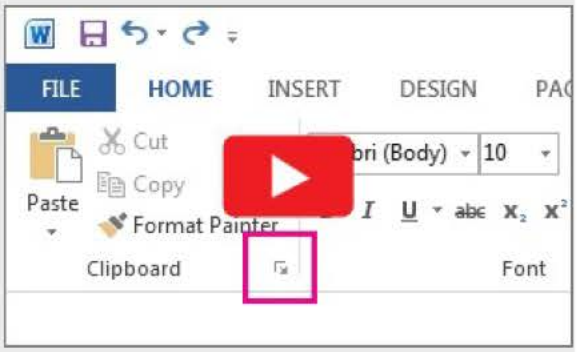
This training outlines Queensland Health's zero tolerance to fraud, corruption and misconduct and develops awareness of employees' role in prevention and detection of unethical and fraudulent behaviours.

IT Tips and Tricks

Copy and paste multiple items

The Office Clipboard allows you to copy up to 24 items and paste them in any order (i.e. you're not limited to only pasting the last item you copied).

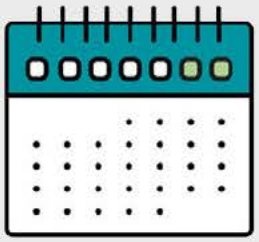
Read more **here** or watch the quick video guide below!



What's on in September

Training hosted this month includes

- Delivery of FSS Training and Assessment
- POVA Verification
- Drive your own development
- Interview skills



Click on the links below to view all available offerings.

Click to view the FSS Training Calendar Click to view the DoH Training Calendar

Hellos and Goodbyes

This month we welcome

- Ben Brown - Property and facilities management
- Cameron Moffat - Public Health Microbiology
- Haley Elliott - MSS Security
- Karen Joy - Coronial and family services
- Ravindu Kulasekara - ServiceFM cleaning

Sadly, we say goodbye and give our best to

- Adrienne Barbour-Broederlow - Public Health Virology
- Monica Dillon - Public Health Virology
- Uthpala James - Public Health Virology
- Gary Prove - Inorganic Chemistry
- Tuyet Nguyen - Inorganic Chemistry
- Jamie Du Bois - Campus support (Secondment)
- Neelima Nair - Public Health Virology (Secondment)

New training on offer at FSS

Risk Management at FSS OQI Root Cause Analysis

Learn how to identify your risk appetite, manage the risks to your work unit, and how to clearly define and record a risk. *This course is within the FSS Managers Toolkit - click on the 'Risk Management at FSS' tile to navigate to this training.*

Learn more

Designed to assist staff to effectively investigate and action OQI's using Root Cause Analysis (RCA) techniques. *This presentation is within the FSS QIS2: OQI iLearn course - click on the 'OQI Root Cause Analysis' tile to navigate to this training.*

Learn more

Hazardous Chemical Mixtures

Mandatory for all staff that create chemical mixtures. It serves to remind staff of the legislative requirements for labelling mixtures, and demonstrates how to complete this using ChemAlert.

Learn more

Job Seeking Skills

Practical advice covering how best to search for job opportunities including applying for positions using selection criteria, interview preparation, and some tips on how to respond to common interview questions.

Learn more

Systems Leadership Masterclass

Date: 14 September 10am - 12pm
Cost: Free - Sponsored by the Chief Executive Leadership Board
Hosted via Microsoft Teams

Adjunct Professor Michael Hogan (Queensland University of Technology) will provide useful insights on concepts, frames, tools, and behaviours relating to systems leadership and systemic change.

This masterclass, the first in the **Change and Adaption mini-series**, will assist those who want to

be part of the new generation of leaders: leading and facilitating effective systems as well as their teams and organisations.

Some pre-reading material will be provided in advance to registrants. This masterclass aligns to the Leadership competencies for Queensland including leads change in complex environments, and makes insightful decisions.

Register here >>

Ongoing eLearning Opportunities

THE UNIVERSITY of ADELAIDE

Stanford University

UNIVERSITY OF LONDON

Project Management

Learn the principles of project management and apply them in your own work and life.

Find out more >>

Organisational Analysis

Learn multiple theories of organisational behavior and apply them in actual cases of organisational change.

Find out more >>

Managing People

In the course you will engage with some HR theories and then see how they translate into every day working life.

Find out more >>

Forensic and Scientific Services
Prevention Division
39 Kessels Road, Coopers Plains QLD 4108

www.health.qld.gov.au/FSS

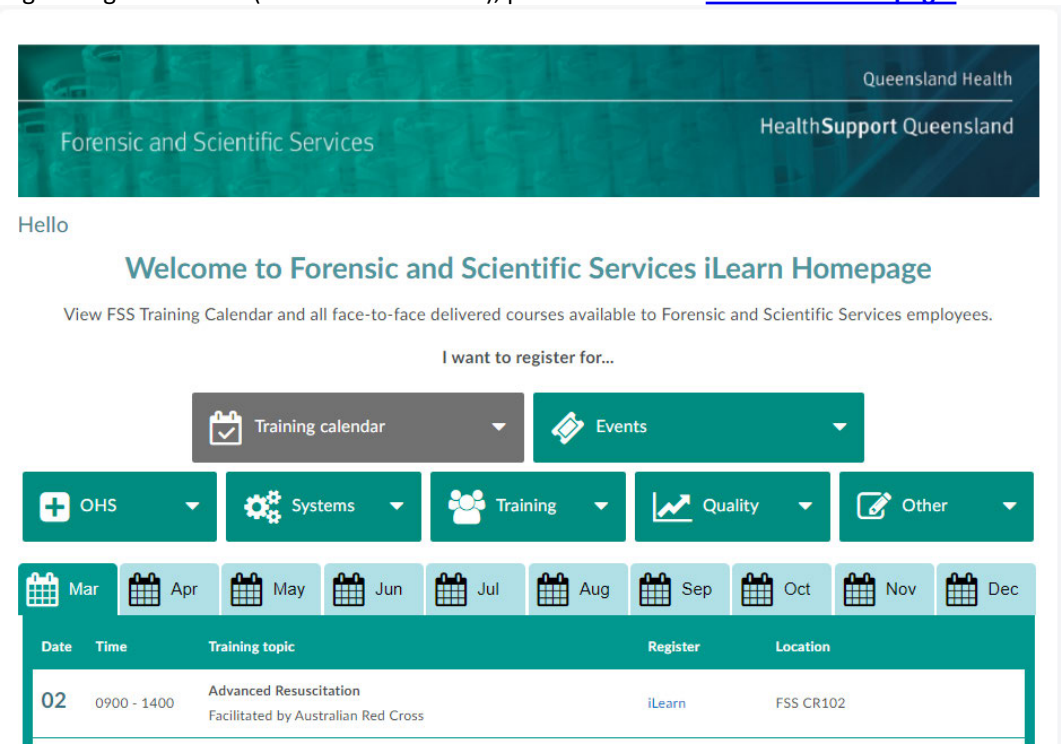
Queensland Government

From: FSS Training
Sent: Monday 1 March 2021 11:16:19 AM
To: DL-FSS-Campus-All-Staff
Subject: FSS Training - March 2021

Pinch and a punch for the first day of the month!
SSDU has been busy updating our facilitated training and we are pleased to announce the following training competencies are now available for registration through iLearn

- Delivery of FSS Training and Assessment
- Provision of Court Testimony
- Release of results

To view all the FSS SSDU facilitated training competencies available, as well as the dates/times of training throughout March (and the rest of 2021), please access the **iLearn FSS Homepage.**



Remember, the DoH Learning Gateway includes other professional development resources too.
Kind regards
Sam, Pete, Andrew and Kirstyn

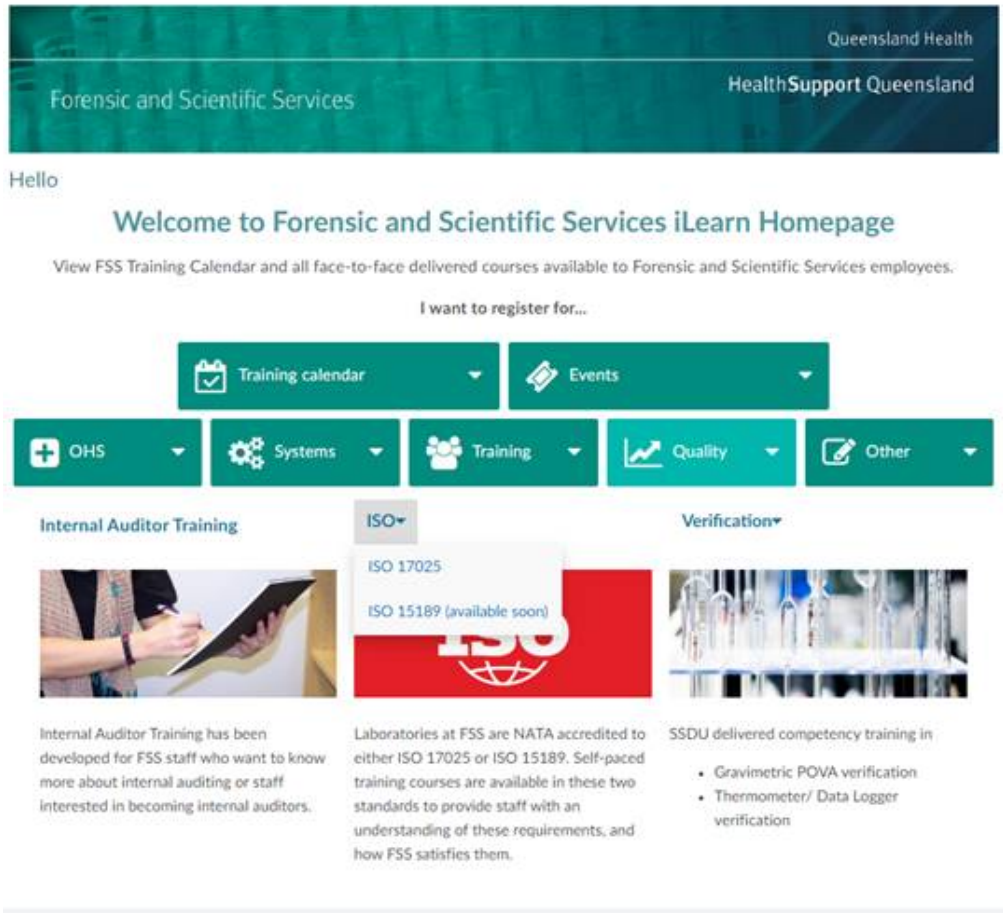
Scientific Skills Development Unit (SSDU)
Forensic and Scientific Services
Health Support Queensland, Queensland Health
p07 [redacted]
a39 Kessels Road, Coopers Plains, QLD 4107
e [redacted] w www.health.qld.gov.au/healthsupport

Integrity | Customers and patients first | Accountability | Respect | Engagement

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and future.

From: Helen Gregg
Sent: Tuesday 24 November 2020 11:46:29 AM
To: Andrea Norton;Bronwyn Lind;Cathy Hurst;Courtney Smith;Cristina Vasquez;Daniel Baptista;Drew Watson;Elizabeth Gierach;Helen Gregg;Inga Sultana;Karen Reardon;Kirsten Scott;Lenore Hadley;Pete Clausen;Samuel Lemon;Yolanda Dickeson
Cc: Kirstyn Jory
Subject: ISO 17025 course is now live on iLearn

Hi everyone,
Just a quick email to let you know that the ISO 17025 course is now live on iLearn for FSS staff to complete if they want to. Please use Microsoft Edge as the browser!
https://ilearn.health.qld.gov.au/d2l/home/61184



Regards
Helen

Helen Gregg
Quality Manager
Forensic and Scientific Services
Health Support Queensland, Queensland Health
p 07 [redacted] **m** [redacted]
a 39 Kessels Road, Coopers Plains, QLD 4107
e [redacted] **w** www.health.qld.gov.au/healthsupport

Integrity | Customers and patients first | Accountability | Respect | Engagement

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and future.

Forensic and Scientific Services

Internal Auditor Training

Training Overview

TOPICS

- Standards
- What are the reasons for conducting an audit?
- Introduction to an Internal Audit
- Audits and Processes
- Audit Schedule
- Your Role as an Auditor
- The Audit Process
- Stage 1: Preparation
- Stage 2: Performance

Stage 3: Reporting

Stage 4: Audit Follow Up

CONCLUSION

Key Points and Conclusion

Knowledge Check Quiz

Lesson 1 of 14

Training Overview

Welcome!

Let's begin with a brief overview of this training module so you understand what to expect.

"Internal audits are a vital part of the quality management system; checking compliance and identifying areas of improvement"

- He en Gregg, Qua ity Manager

CONTINUE

Who is this training for?

- Staff who are interested in becoming internal auditors
- Staff who want to know more about internal auditing
- Staff who are participating (i.e. demonstrating a method) in internal audits

CONTINUE

Aim of the course

- Support the quality management system and the continuous improvement principles that are used
- Manage risk and identify process improvements for the organisation
- Maintain an internal quality audit resource

CONTINUE

By the end of this competency, you will

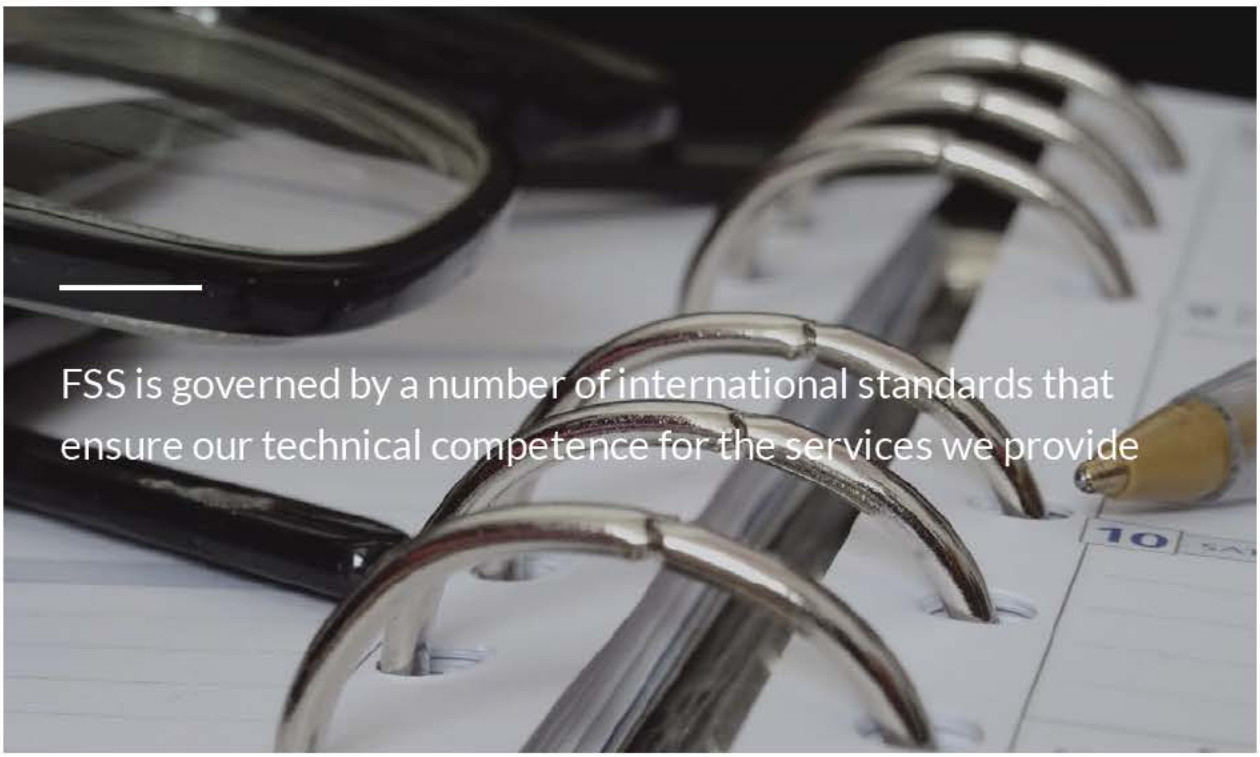
- Understand the aims and objectives of an audit program

- Identify critical processes within work areas
- Participate as a team member to carry out audits focused on:
    - Risk
    - The effectiveness of associated controls
    - Potential process improvements
- Know how to access the 'Audit' module in QIS and complete the relevant records
- Complete and issue an Opportunity for Quality Improvement (OQI)

Now that you know the who and the why, let's start exploring.

Lesson 2 of 14

Standards



You can access any of the below Standards through the FSS Library [redacted] or from the FSS Quality Office

Certification

ISO 9001: Quality Management System Requirements
Requirements for a quality management system that can be used by an organisation to address client satisfaction, by meeting client and regulatory requirements. It can also be used by internal and external parties, including certification bodies, to assess the organization's ability to meet client and regulatory requirements.

This standard encourages the adoption of a process approach to quality management. Any activity that receives inputs and converts them to outputs can be considered as a process.

Laboratory Accreditation

Implementation of a Quality Management System (i.e. Certification) as well as the technical requirements for each discipline.

ISO/IEC 17025 - General Requirements for the competence of testing and calibration laboratories. General requirements for the competence of laboratories to carry out tests and/or calibrations, including sampling.

ISO/IEC 15189 Medical Laboratories. Particular requirements for quality and competence of laboratories performing medical testing.

Supplementary Requirements

Additional to the requirements contained in Laboratory Accreditation (i.e. 17025 and 15189), are supplementary requirements for each of the accreditation fields.

Supplementary Requirements are detailed in the Standard Application Document (SAD) and Field Application Documents (FAD).

The fields relevant at HSQ are:

- Forensic Science
- Biological Testing
- Chemical Testing
- Medical Testing

- Proficiency Testing

Some laboratories also have accreditation to the following:

- **ISO 17034 General Requirements for the competence of reference material producers**

Standards focus on the key areas of:

- Internal Audits
- Corrective/ Preventive action procedure (Opportunities for Quality Improvement)
- Document Management
- Management Review

In the next lesson, you'll explore why we audit.

Lesson 3 of 14

What are the reasons for conducting an audit?

Best Practice TV. 2017. *Internal Auditor Training* [Video]. YouTube. https://www.youtube.com/watch?v=deRqslBeMrE

CONTINUE

Internal vs External Audits

Internal Audit	**Conducted by the organisation** Conducted on some aspect of activity; for example, do all staff have up to date training records? • Verifies the integrity of
External Audit	**Conducted by External Bodies** Third party • Certification Audits (BSI ISO 19001) • Accreditation (NATA ISO/IEC 15189 and/or

In the next lesson, you'll learn about what makes an effective internal audit and the importance of teamwork.

Lesson 4 of 14

Introduction to an Internal Audit

All Forensic and Scientific Services divisions/departments/laboratories should be constantly evaluating their activities and seeking to continually maintain and improve quality.

The overall aim of evaluation and quality improvement in a laboratory is to continue to meet the needs and requirements of clients.

An effective audit process

- Provides an extremely positive insight into the operational processes of an organization.

- Ensures that time is allocated for both auditors and auditees to review the effectiveness of procedures which document the conduct and control of critical work activities.
- Results in the identification of opportunities for improvement (e.g. improved efficiency, reduced errors, etc) which are to the benefit of the organisation, lab staff, lab managers and clients/ customers.
- Breaks down barriers between the personnel in different sections of the organization by building a better understanding of both the people and work processes in the different sections

- Teamwork from those providing the auditing function – this includes managers and supervisors who must approve the auditors' absence

- Teamwork from those performing the procedure/process under examination

CONTINUE

What is an internal quality audit?

Examination of a critical process by an independent person to:

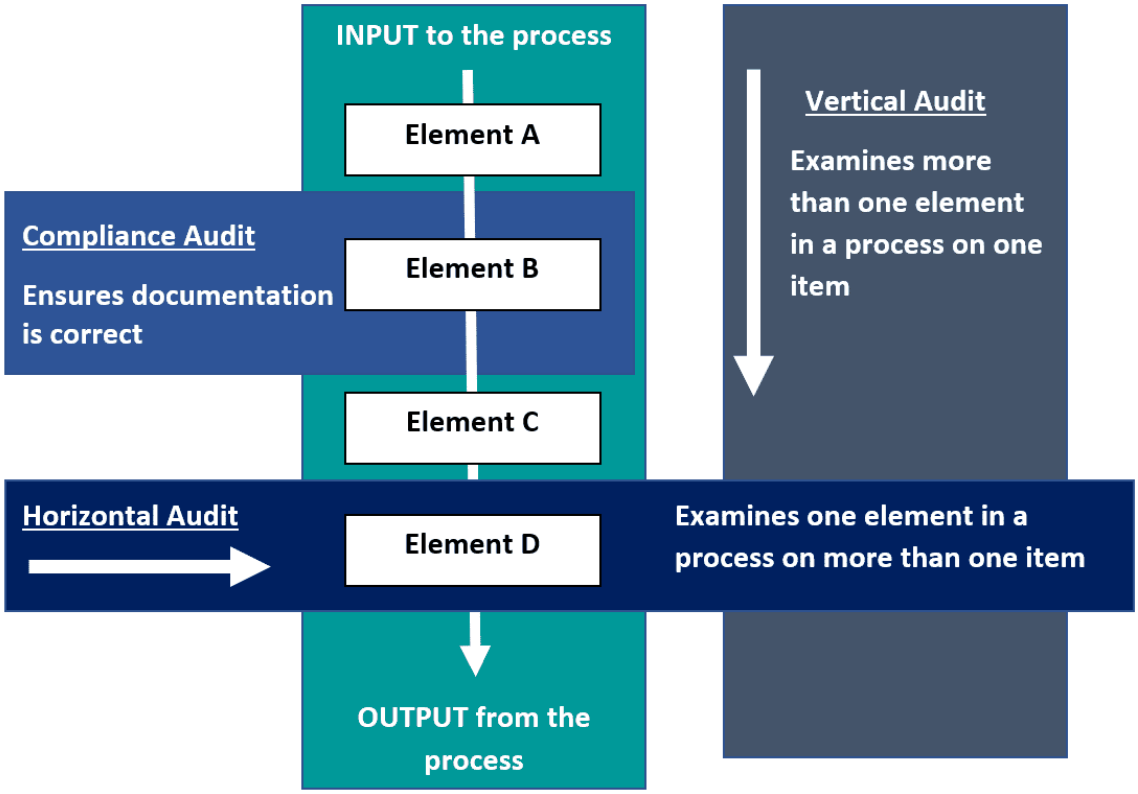
- Identify risks within the process itself
- Determine the effectiveness of controls to minimize these risks
- Identify potential improvements either within the process itself or in the interaction between other activities

In the next lesson, you'll learn the three different methods of an audit and how these methods differ in relation to the individual elements of a process

Lesson 5 of 14

Audits and Processes

Methods of Audits



Note - click image to enlarge

There are a number of different methods we can use when auditing.

These are defined in the following diagram as **compliance audits**, **horizontal audits**, and **vertical audits**.

The diagram shows the relationship between the different methods in relation to the individual elements of a process.

COMPLIANCE AUDITS | HORIZONTAL AUDITS | VERTICAL AUDITS

Assess compliance with documented policies and procedures. The auditor assesses whether or not the system is being followed as documented in the procedures, and if it is effective. (Audit is checking compliance with documented procedures.)
This is often performed by taking a procedure, and then going through each step to check that what the procedure says is being done.
Although it is important to verify that what the document says and what people do are linked and that staff are aware of what the procedures say and that they reflect what people do, there is however a limit to the effectiveness of this type of audit and we need to use different techniques.

Major Focus:

- New process or procedure, as a check that it is appropriate and effective (each procedure/method should be audited at least once).
- Check that an individual staff member has a thorough understanding of the work they are undertaking e.g. to ensure competence in a particular procedure.
- Where there have been problems identified with a procedure i.e. OQI

COMPLIANCE AUDITS | HORIZONTAL AUDITS | VERTICAL AUDITS

Internal audits of the Quality Management System or "System Audits" are usually conducted as horizontal audits. These ensure that all appropriate requirements of the standard(s) are being met.

Major Focus:

- All aspects of the Quality Management System; for example, document control, control of records as per relevant standards
- Following an external assessment e.g. BSI or NATA, all laboratories/departments may be requested to check compliance against the non-conformances found.

COMPLIANCE AUDITS | HORIZONTAL AUDITS | VERTICAL AUDITS

In order to assess the effectiveness and efficiency of the system, the auditor must become involved in examining inputs, processes/activities and outputs.

The auditor will be concerned with how the processes are implemented, to what extent they are controlled, whether their inputs are available and appropriate and whether they are producing an acceptable output.

Major Focus:

- The critical elements of a process
- Potential risks and their consequences
- Associated controls
- Interactions with other processes and activities
- Potential improvements

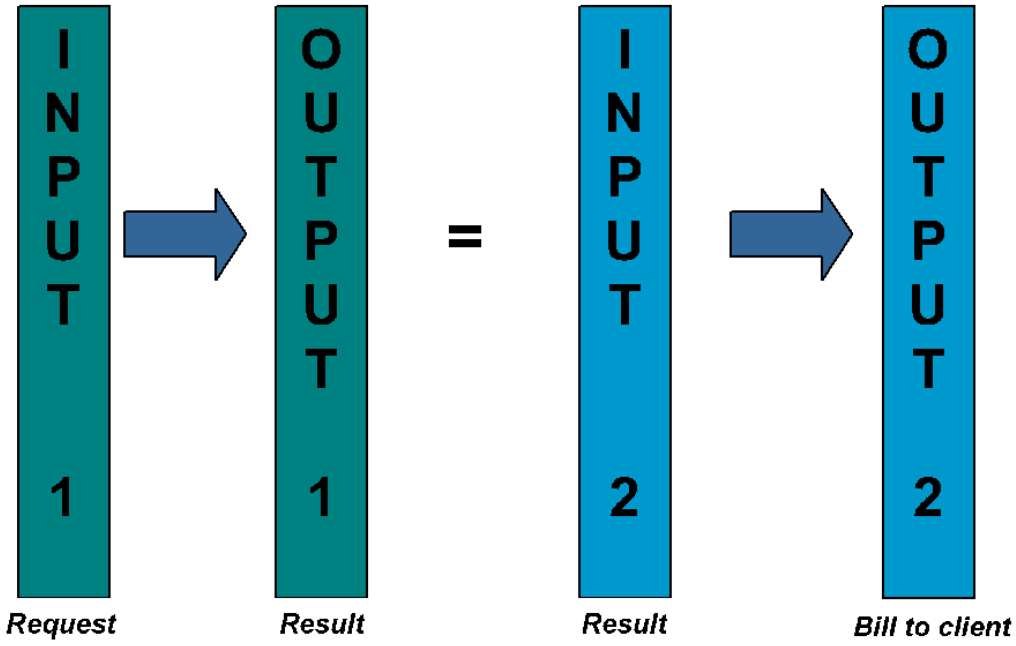
CONTINUE

What is a process?

A process is any activity or set of activities that uses resources to transform inputs to outputs can be considered a process.

To function effectively, organisations have to identify and manage many interrelated and interacting processes. Often, the output from one process will directly form the input into the next process.

The process approach is the identification and management of the processes used with an organisation and particularly the interactions between such processes.



In the next lesson, you'll explore the steps of an audit schedule

Lesson 6 of 14

Audit Schedule

Predetermined Audit Schedule

The ISO Standards require that audits be conducted to a schedule. This schedule is usually created at the beginning of the year by the team leader and the quality representative. The program is required to address all elements of the standard and is normally completed in a twelve-month period.

Audit topics are chosen based on numerous criteria, including

- New methods or equipment
- Perceived areas of risk
- Received OQI's
- Previous audit findings, including external audits
- New areas of the standard, SAD or FAD
- Results of management review

There are also audits coordinated through the Quality Office at Forensic and Scientific Services. These are conducted across the whole campus and tend to focus on the Quality Management System or issues affecting *all* areas.

In the next lesson, you'll learn about your role as a auditor, including your required capabilities and characteristics.

Lesson 7 of 14

Your Role as an Auditor

Who gets what?

Auditors are assigned by the team leader (or delegate) based on several criteria including:

- Knowledge of the area to be audited
- Availability
- Objective and scope of the audit

CONTINUE

Auditor Capabilities

Auditor Capabilities

- **Trained and experienced in conducting audits**. This training will be supplemented with supervised guidance during actual audits to

Auditor Characteristics

Auditor Characteristics

- ***Inquisitive nature:*** an individual who wonders how things work may make a good auditor
- ***Oral communication skills***: auditors must have the

In the next lesson, you'll learn about the audit process

Lesson 8 of 14

The Audit Process

Stage 1

Preparation

1. Review documentation
2. Make contact

3. Develop checklist

Stage 2

Performance

1. Introduction
2. Conducting an audit
3. Summarise findings/ close meeting

Stage 3

Reporting

1. Audit report
2. OQI

Stage 4

Audit Follow Up

1. Responsibilities
2. Management review

In the next lesson, you'll unpack Stage 1: Preparation

Lesson 9 of 14

Stage 1: Preparation

STEP 1: REVIEW DOCUMENTATION | STEP 2: MAKE CONTACT | STEP 3: DEVELOP CHECKLIST

Prior to the audit, auditors should gain an overview of the procedure (or part thereof) to be audited, and determine the areas of highest risk (and thus where the audit should focus).

- Relevant documents (policies, procedures and methods), previous audit reports and associated OQIs can be accessed via QIS.
- Relevant standards, SADs or FADs can be sourced from the Quality Office or from the team leader.

STEP 1: REVIEW DOCUMENTATION | STEP 2: MAKE CONTACT | STEP 3: DEVELOP CHECKLIST

Contact the audit contact (and if you are working with other auditors, contact them too) and determine the objective, scope and criteria of audit.

Agree on date and time of audit and create a calendar appointment. Ensure you include time for writing the report.

STEP 1: REVIEW DOCUMENTATION | STEP 2: MAKE CONTACT | STEP 3: DEVELOP CHECKLIST

Main purpose is to provide a list of prompts identifying the key components of the process that must be audited

·Ensure familiarisation with procedure
·Ensure questions are developed from relevant docs and requirements
·Provides objective evidence of what has been audited

CONTINUE

Step 1: Review Documentation

Review Processes

Practice Exercise: Review the below document, 26370v5 – Procedure for staff changes in QIS2, and identify the processes as either Inputs, Critical Activities or Outputs.

PDF **26370V5 - Procedure for staff changes in QIS2.pdf**
169.2 KB

Inputs

Staff moves to or from FSS

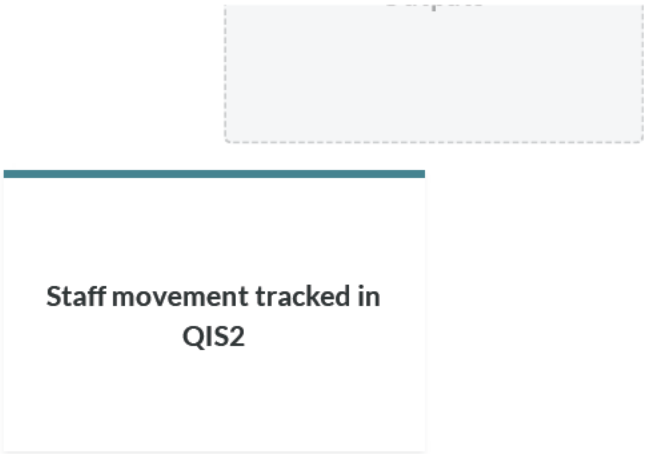
Critical Activities

Form processed by WSS or Lab Manager

Notification sent to QIS2 admin team

QIS2 admin team updates QIS2

Outputs



CONTINUE

Perform Risk Management

Audits need to cover an appreciation of **risk assessment** of the process. Processes are more than just the documentation; they consist of institutional practice and knowledge that is sufficiently formalised. **Risk management** is the consequences of the actions, i.e. the outcomes.

Internal audits can be used to determine the existence and / or adequacy of controls. Subsequent audits will determine the ongoing effectiveness of those controls and whether any additional controls need to be implemented.

When performing an audit, we should be looking at the factors in our processes that affect client satisfaction and organizational efficiency.

Paladin Risk. 2014. *Risk Management* [Video]. YouTube. https://www.youtube.com/watch?v=t2p6oby_rss

---

Utilising the Queensland Health Risk Analysis Matrix will assist you in performing the risk analysis.

Critical Steps	Possible Error	Control	C'quence	Likelihood	Risk Rating	Focus of Audit
Form processed by Workforce Support Services (WSS)	Form not done	1.Checklist 2.embedded process	Negligible	Unlikely	L	X
Form completed by Line Manager (LM)	Form not done	1.Staff member goes to new area of QH 2.embedded process	Negligible	Unlikely	L	X
Notification sent to QIS2 by WSS	Form not rec'd	Check box on form and checklist	Negligible	Unlikely	L	X
Email sent to QIS2 by LM	Form not rec'd	Staff on LM home page	Negligible	Likely	M	√
QIS2 Admin Team updates QIS2	QIS2 not updated	Staff on LM home page	Negligible	Rare	L	X

Risk Management Matrix for Tracking Staff Movements in QIS2

- **Identify Risks**
- **Determine existing controls**
- **Rate likelihood of occurrence**
- **Rate consequence of error**
- **Estimate the overall risk rating**
- **Determine whether this aspect should be a focus of the audit**

CONTINUE

Cost vs Benefit Analysis

The benefit of an audit must be greater than the total cost of conducting the audit.

The cost consists of:

- The auditor’s time in preparing, performing, reporting and following up the audit, together with any others in the audit team
- The audit contact's time in answering questions. This may involve a number of staff
- Inconvenience and disruption to the work processes.

Costs are minimised and benefits maximised when you:

- Assign auditors to work areas they understand. Audits are far more effective when the auditor understands the process and knows where to look for problems and potential improvements
- Focus on processes essential to the organisation
- Focus on elements critical to the process (as identified by supervisors)
- Focus on the process controls and their effectiveness at minimising risk
- Focusing on potential improvements both in individual processes and the way in which they interact with other parts of the organization
- Focusing on the positive aspects of audits i.e. improvement as opposed to blame
- Focusing on the process, not individuals

CONTINUE

Step 2: Make Contact

Agree on a time and date

Contact other auditors (if more than one), the line manager (or delegate) and, if applicable, the staff performing the process to be audited.

Agree on date and time of audit and create a calendar appointment. Ensure you include time for writing the report.

Determine Objective, Scope and Criteria of Audit

Audit Objective

The audit objectives defines what is to be accomplished by the audit and should be clearly documented.

Typical objectives are:

- Determine the extent of conformity
    - Check that a procedure is being followed
- Evaluate the capability
    - Does it conform to regulatory requirements? To assess if the procedures documenting the process for controlling a new venture will be adequate prior to commencement of operations, e.g. setting up a new specimen reception area
- Evaluate effectiveness
    - A procedure has been developed for a new item of equipment or to control an activity which has been substantially changed.
    - Follow up from an OQI to ensure the actions taken have eliminated the cause of the problem
- Identify areas for potential improvement

Audit Scope

The audit scope describes the extent and boundaries of the audit such as physical locations, organisational units, activities and processes to be audited and the time period.

- Whole process from collection to receipt of report
- Part of a process e.g. equipment only
- Process in one department vs all departments

Sometimes the audit scope may not be entirely identifiable prior to commencement, e.g. where the objective is to find the root cause of a problem. In this case, the scope would be defined as the audit progresses.

Audit Criteria

The audit criteria are the requirements against which the activities or products are being compared.

- Standards – ISO 9001, ISO/IEC 17025, ISO/IEC 15189; NATA SAD/FAD
- Procedures detailing the process, process maps
- Policies
- Contractual requirements
- Previously established checklist

Objective

Determine extent of conformity of Line Managers forwarding forms to QIS Admin.

Scope

FSS staff moving outside HSQ April 2019 - May 2019

Criteria

QIS 26370; Section

CONTINUE

Step 3: Develop Checklist

An audit checklist will outline the key components of the process that must be audited, and how they will be assessed.

A checklist also ensures familiarisation with the procedure, ensures questions are evolved from relevant documents and requirements and provides objective evidence of what has been audited.

When preparing an audit checklist, the auditor should be thinking ahead to the process and what factors might affect its successful implementation. The checklist should contain as much or as little information to enable you to carry out an effective audit.

Generic checklist templates are available on QIS. They may be accessed through the 'Resources' section of the Documents module, alternatively, follow the links below.

QIS: 19145

Audit Checklist Template

GO TO CHECKLIST

QIS: 19130

Audit Checklist - General

QIS: 20088

ISO 9001 Checklist

GO TO CHECKLIST

QIS: 20030

ISO 17025 Checklist

GO TO CHECKLIST

QIS: 20032

ISO 15189 Checklist

GO TO CHECKLIST

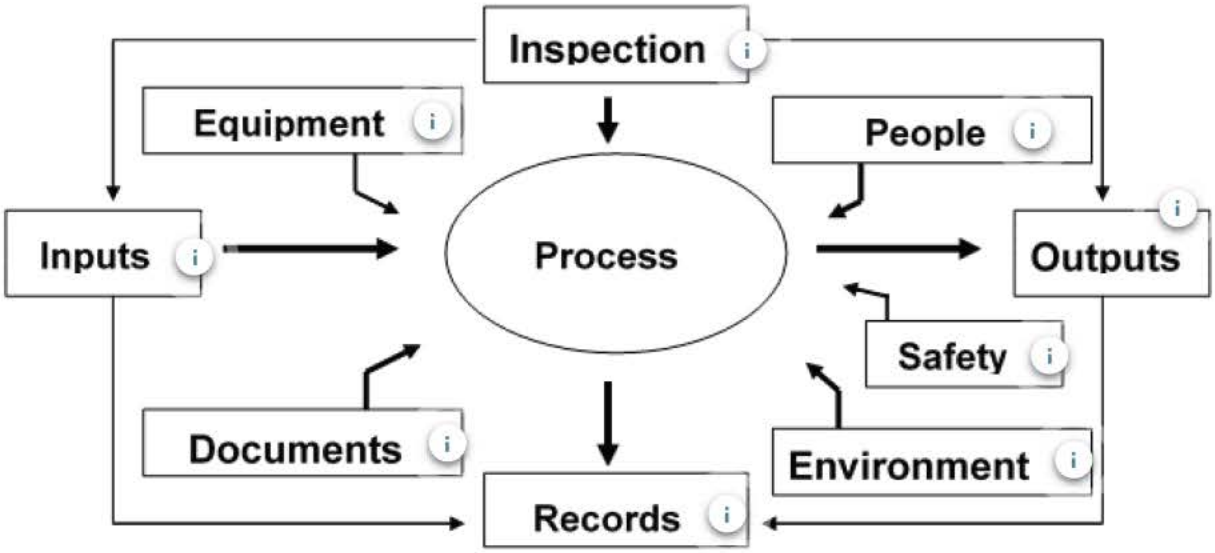
QIS: 20026

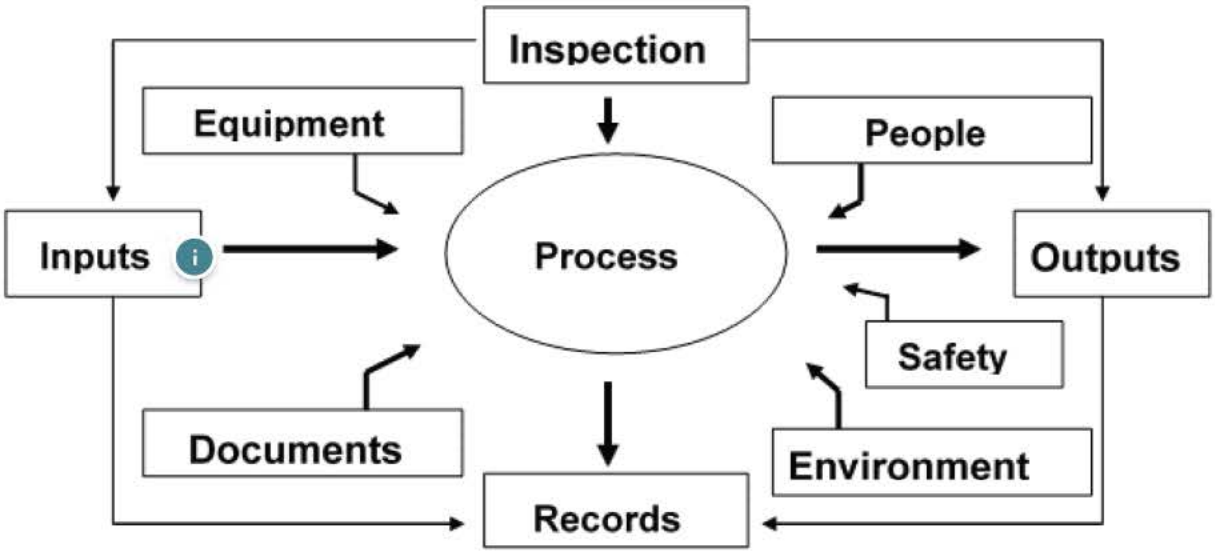
ISO 17034 Checklist

GO TO CHECKLIST

CONTINUE

It may be useful to picture the process as a series of interrelated factors, covering inputs, procedures, outputs, equipment, people, documents, records, environmental conditions, inspection or monitoring activities and safety implications.





Inputs

Sample/ Collections

Sampling techniques

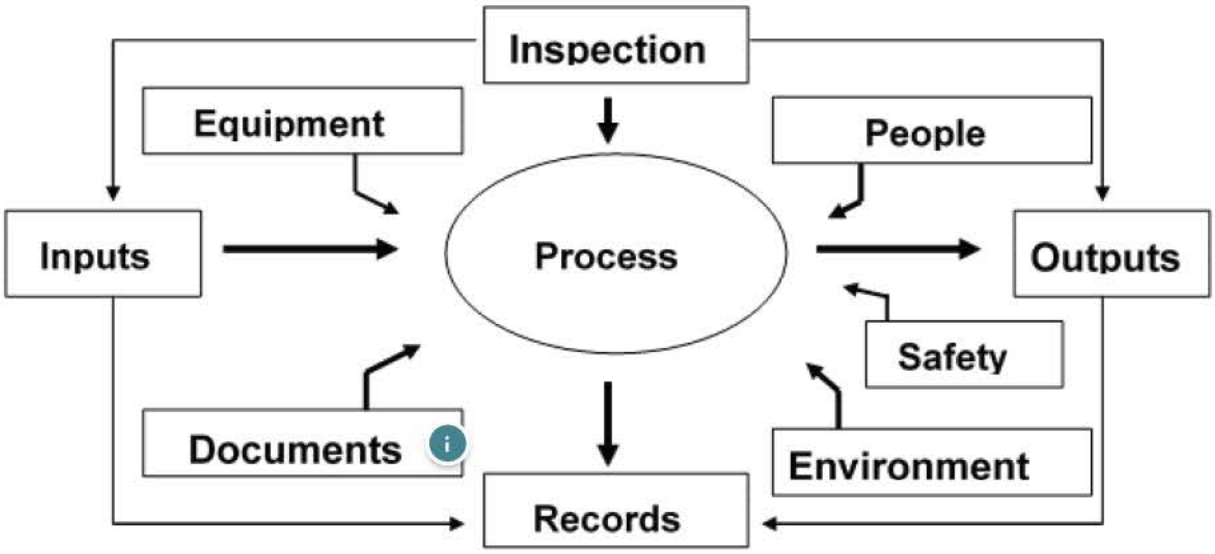
- Documented procedures are available to staff at collection
- Staff are adequately trained
- Adequate records are kept

Sample identification

- Identification is unique for each sample
- Identification is linked to records
- Where samples are unsuitable for testing/or identification is in doubt, the requesting doctor/officer is contacted.

Sample handling

- Sample receipt, registration, preparation and disposal is carried out as per procedures
- Procedures are in place to prevent deterioration of test items
- If preconditioning or storage under specific conditions is required, conditions are monitored, and records kept.



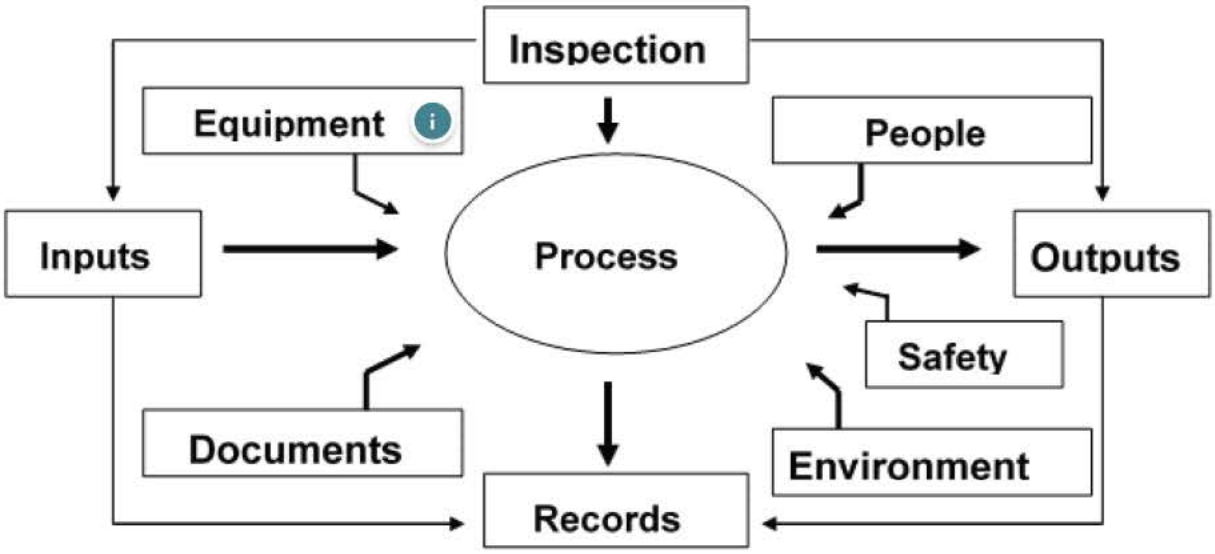
Documents

All methods reviewed

- Are documented clearly, in sufficient detail.
- Are readily available and used by staff
- Have appropriate document control
- All methods have been adequately validated.

Document control of methods is examined

- Only current versions are in use
- Any “extracts” are document controlled
- No unauthorised amendments are made to methods
- No superseded or obsolete methods available.



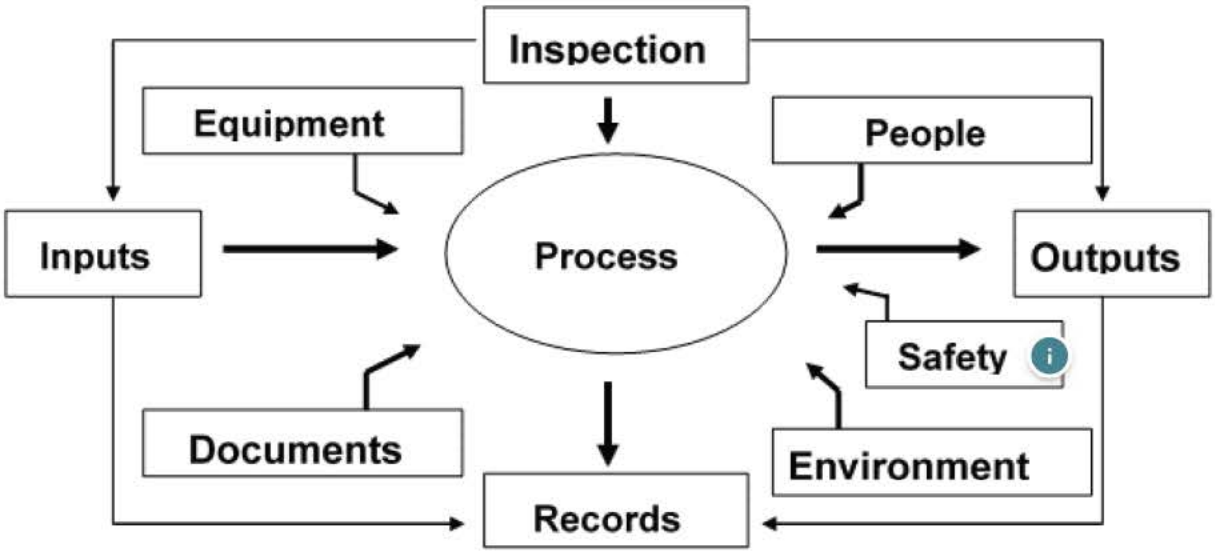
Equipment/ Calibration

Management of Equipment review:

- Necessary equipment is available
- Equipment is operating correctly and is maintained in good working order
- Operating instructions are available
- Staff are competent in the use of the equipment
- Equipment that is damaged or requiring calibration is kept out of use
- All equipment is uniquely identified, and relevant records maintained
- Appropriate preventative maintenance programs are in use.
- Equipment performance is monitored

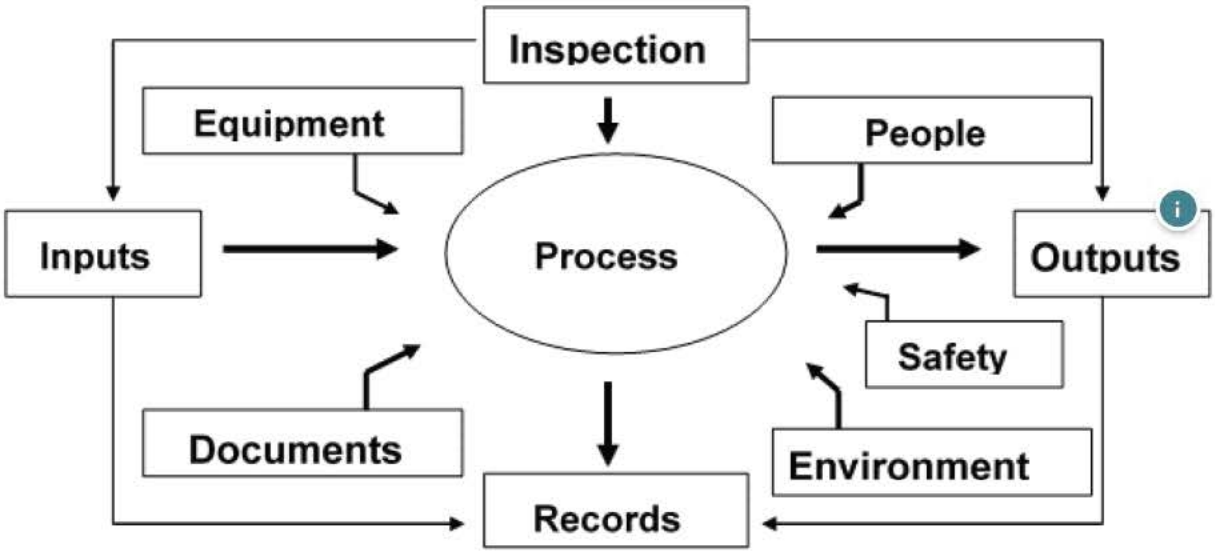
Calibration and measurement traceability:

- The initial calibration, recalibrations and performance checks are appropriate
- The calibration schedule includes all relevant equipment
- The frequency of recalibrations and performance checks are appropriate
- The traceability of reference standards is appropriate



Safety

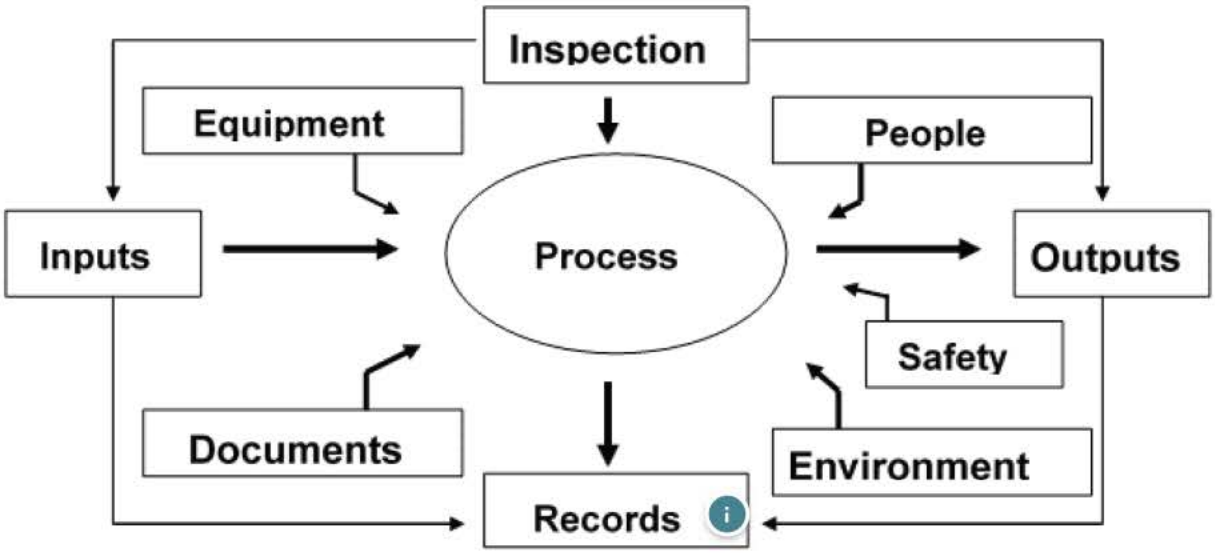
- Risk assessments have been performed and are referenced in the SOP/document.
- Staff are abiding by the required safety precautions.
- Staff are provided with a safe work environment.



Outputs = Reports

Reports are examined:

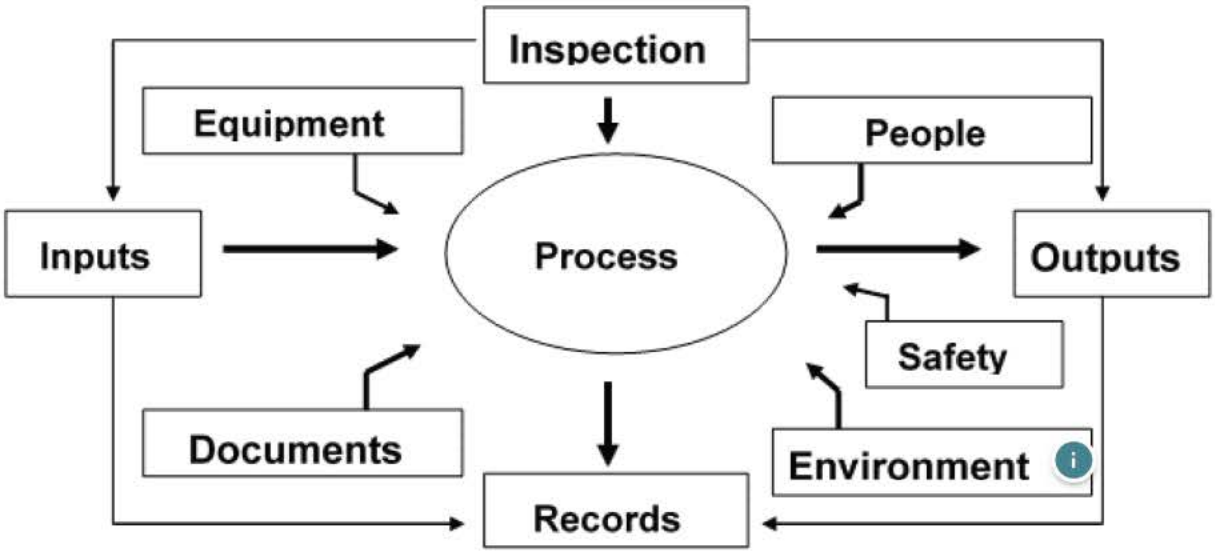
- Content is as required
- Subcontracted results are clearly identified
- Information is easily understood and reviewed prior to release
- Where there is any doubt about the validity of issued results, the report is amended, and the client notified.



Records

Records examined:

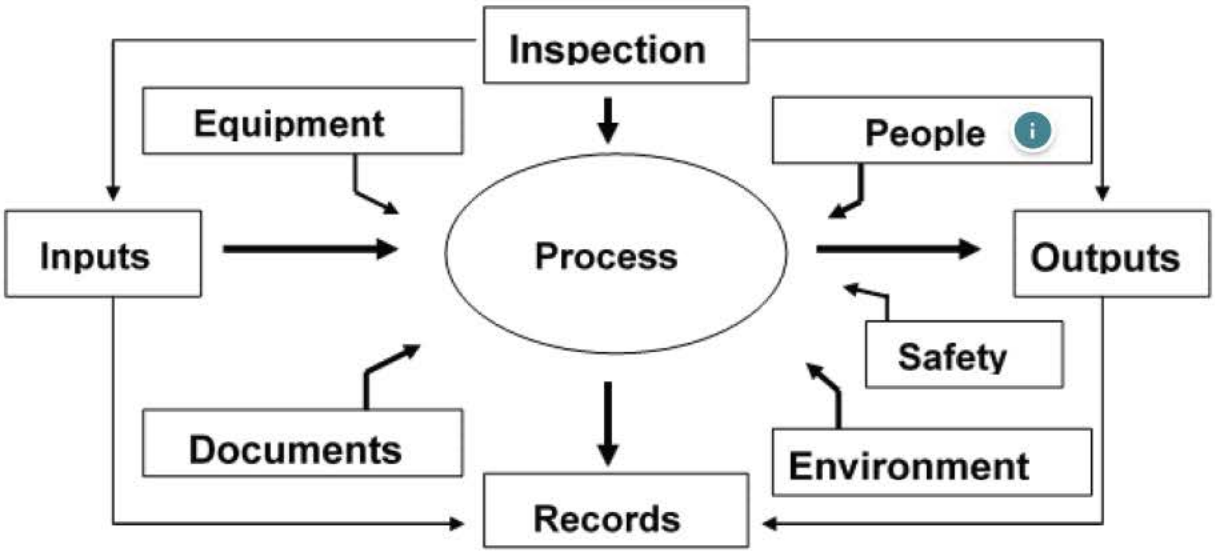
- Traceability of all steps including test requests, sample registration and test records
- Copies of all records and documents are retained appropriately
- Sufficient information is recorded to allow critical review of results and for traceability
- They are legible
- Corrections to errors are authorised
- Securely stored for a defined period, protected against loss and deterioration, and confidentiality is maintained
- Integrity of data capture and transfer
- Validation of computer software
- Appropriate evidence of checking calculations and data transfers



Environment

For controlled environments:

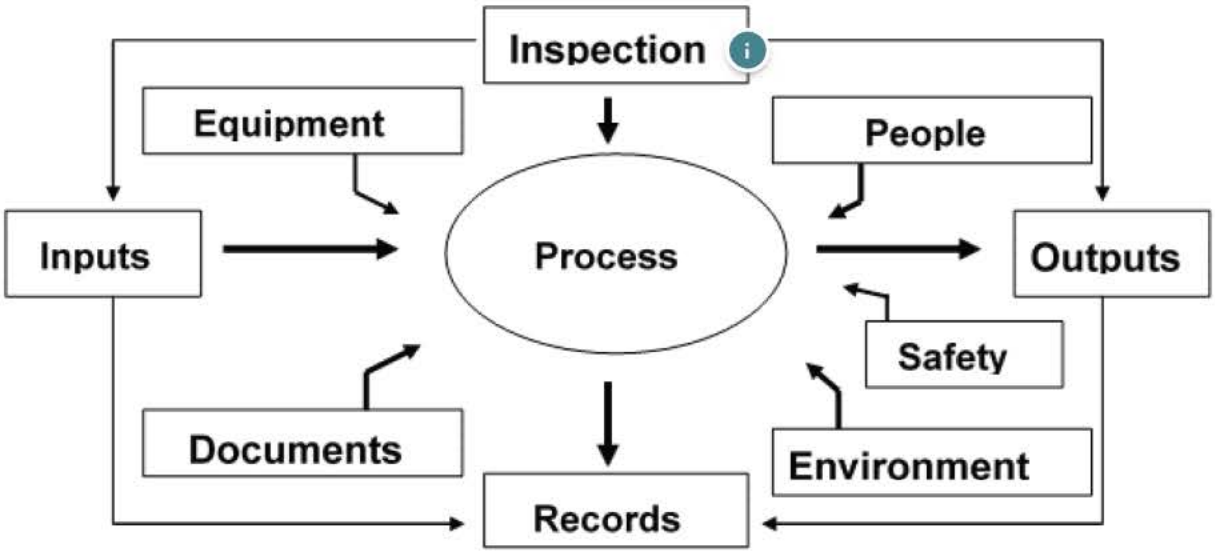
- Relevant monitoring equipment is appropriately located and calibrated
- The potential for contamination or interference is minimised
- Lighting provided is adequate
- Ventilation is adequate
- Benches/test areas are fit for purpose
- Access to facility and storage area is controlled
- Consumables are stores appropriately



People

Staff Training and competence:

- Staff are familiar with methods and capable of carrying them out
- Appropriate training and education have been provided
- Staff are appropriately supervised and technical direction provided
- Staff understand test principles and limitations according to their responsibility
- Training records and competencies are maintained
- Infrequently performed tests are performed routinely to maintain competence



Inspection/ Testing

QAPs are reviewed:

- Participation in all appropriate proficiency programs
- Corrective actions re carried out and documented as necessary
- Internal QC program covers all relevant tests
- Results are reviewed, and corrective action taken as required
- Statistical techniques are applied correctly

CONTINUE

View an example of an Audit Checklist created for FSS Staff Movements in QIS.

Audit Checklist.doc
173.5 KB

CONTINUE

Auditor's favourite questions

- Why is it done that way?
- What kind of things can go wrong? How would you know? What would be the result?
- What controls are in place to ensure things do not go wrong? How would you know if these controls failed? What would you do if this happened?
- Can you show me the evidence of this?
- What would make this process more efficient or effective? What kinds of frustrations and problems do you experience doing things this way?
- If you could, what would you change about this process/ activity? What prevents you from making these changes? If you cannot make these changes, who can? Have you asked them to make a change?

Generic Questions

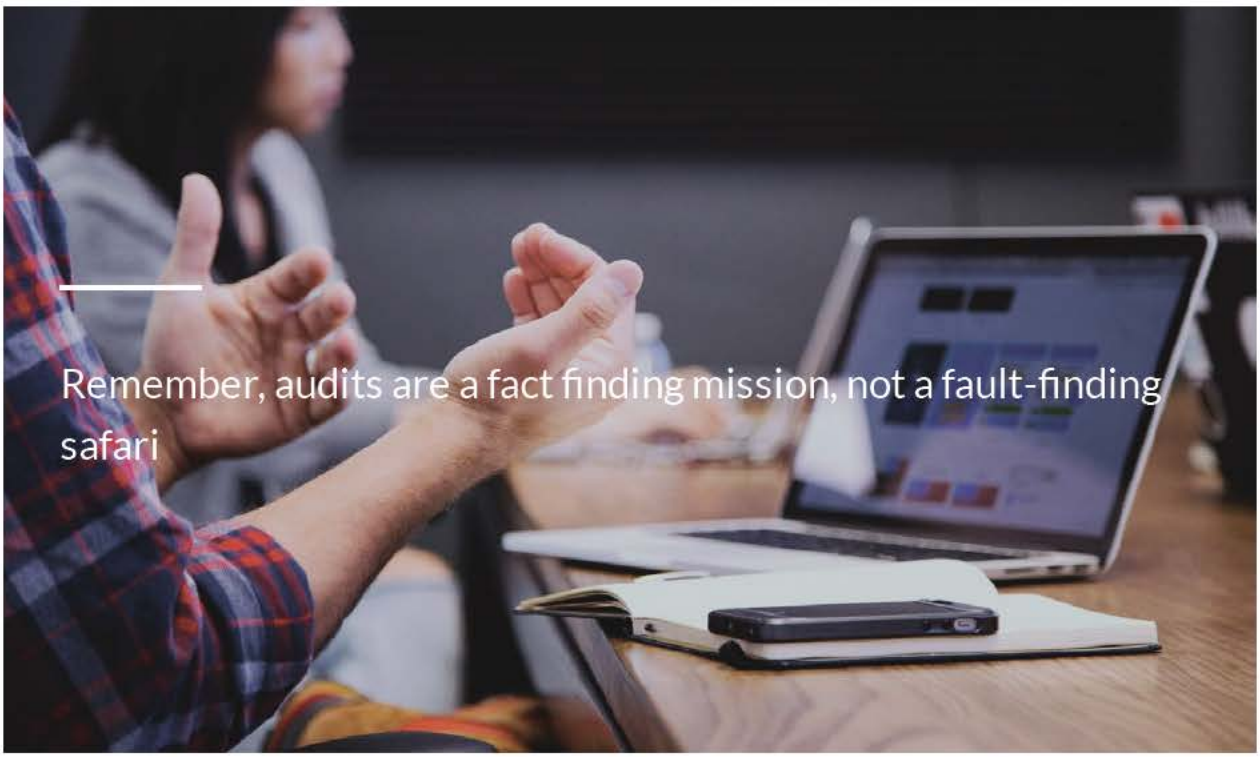
- Could you please explain the process? What are the objectives of this process?

- How do you know this process is working? What happens when something goes wrong?
- What would trigger an improvement to this process?
- Are the people suitable competent?
- Are there appropriate resources?
- Is the working environment suitable?

Continue to Stage 2: Performance

Lesson 10 of 14

Stage 2: Performance



STEP 1: INTRODUCTION | STEP 2: CONDUCTING AN AUDIT | STEP 3: SUMMARISE FINDINGS

- **Be punctual**
- Introduce yourself (and the other auditors if present)
- Clarify the objective and scope of the audit
- Discuss the best way of performing the audit to minimize disruption to the work area

- Reaffirm the areas identified as critical or higher risk
- Clarify whom to conduct the audit it

- Use your checklist
- Ask questions, listen and observe to ensure sufficiency of evidence

Main purpose is to provide a list of prompts identifying the key components of the process that must be audited

·Ensure familiarisation with procedure
·Ensure questions are developed from relevant docs and requirements
·Provides objective evidence of what has been audited

CONTINUE

Step 1: Introduction

The introduction for the audit should take no more than five minutes.

1. Introduce yourself and any other members of the audit team
2. Clarify whom to conduct the audit with and have them introduce themselves
3. Clarify the objective and scope of the audit to the audit contact
    - This allows everyone to be on the same page and sets boundaries for the audit
4. Discuss the best way to minimize disruption with the audit contact
    - It may be preferable in some instances to view documentation/ records first prior to observing the process being performed. In other instances, the audit contact may want you to observe the process first so they can release the results as soon as possible

CONTINUE

Step 2: Conducting an audit

Best Practice TV. 2017. *Internal Auditor Training* [Video]. YouTube. https://www.youtube.com/watch?v=deRqslBeMrE

CONTINUE

Effective Questions = Effective Information Gathering

Successful questioning depends on using a systematic approach

Step 1

Ask effective questions to the right people

You should understand the intent behind your questions; any assumptions you may have made; the importance of choosing your words carefully; and where you are likely to get answers.

> *Ensure you communicate with those who are actually involved in the process. Do not be waylaid by over enthusiastic supervisors, team leaders or quality representatives.*

Ask: open, closed, hypothetical clarifying and show-and-tell questions

Avoid: self-answering, trick, ambiguous, compound, irrelevant questions and questions to the wrong person.

Step 2

Listen

It is only when a response begins that information can be gathered.

- Stop talking and show you want to listen
- Remove distractions
- Disregard preconceived ideas
- Be patient and maintain self-control

Step 3

Acknowledge, Confirm and Record

After listening to the response;

- Acknowledge the response
- Confirm the response by using clarifying questions as required
- Record the response and provide feedback

If the response doesn't match the question, or the response is confusing/doubtful/incomplete/general, acknowledge the response and ask the question again using turnaround or clarifying questions.

Batalas. 2017. Good Auditor Skills [Video]. YouTube. https://www.youtube.com/watch?v=yLLcEpvFnIQ

CONTINUE

Observe valid and current evidence

- Observe records directly related to the activity or critical element you are auditing but do not be afraid to divert to a slightly unrelated area if you sense all is not well with the process.
- Spot check records rather than look at them all. This is normally adequate to pick up systematic errors. Remember, you can always search deeper if you find a problem
- Identify the most critical pieces of equipment and ensure they are calibrated, maintained and labelled correctly
- Locate one or two documents directly relating to the process or activity being audited. Ensure they are controlled, not past their review date, and the people involved in the activity are familiar with the latest changes
- Choose the training records of staff members (the newest and one more experienced)

Sufficiency of Evidence

Before making a judgement about the effectiveness and the efficiency of the process, ask: "Have I seen enough evidence to be confident that a process has met the audit criteria?"

Sufficient evidence may be gathered by multiple means - information supported by written evidence and/or observation.

CONTINUE

Opportunity for Quality Improvement

If an action needs to be taken as a result of your audit, raise an OQI.

Decide if an OQI needs to be raised during the audit. This is so you can advise the team/ audit contact of this decision at the closing meeting

There are three basic criteria for raising an OQIs from an audit:

1. Non-blaming statement of fact
2. Based on objective evidence recorded during the audit
3. Directly related to a specific requirement in the SOP or relevant Standard

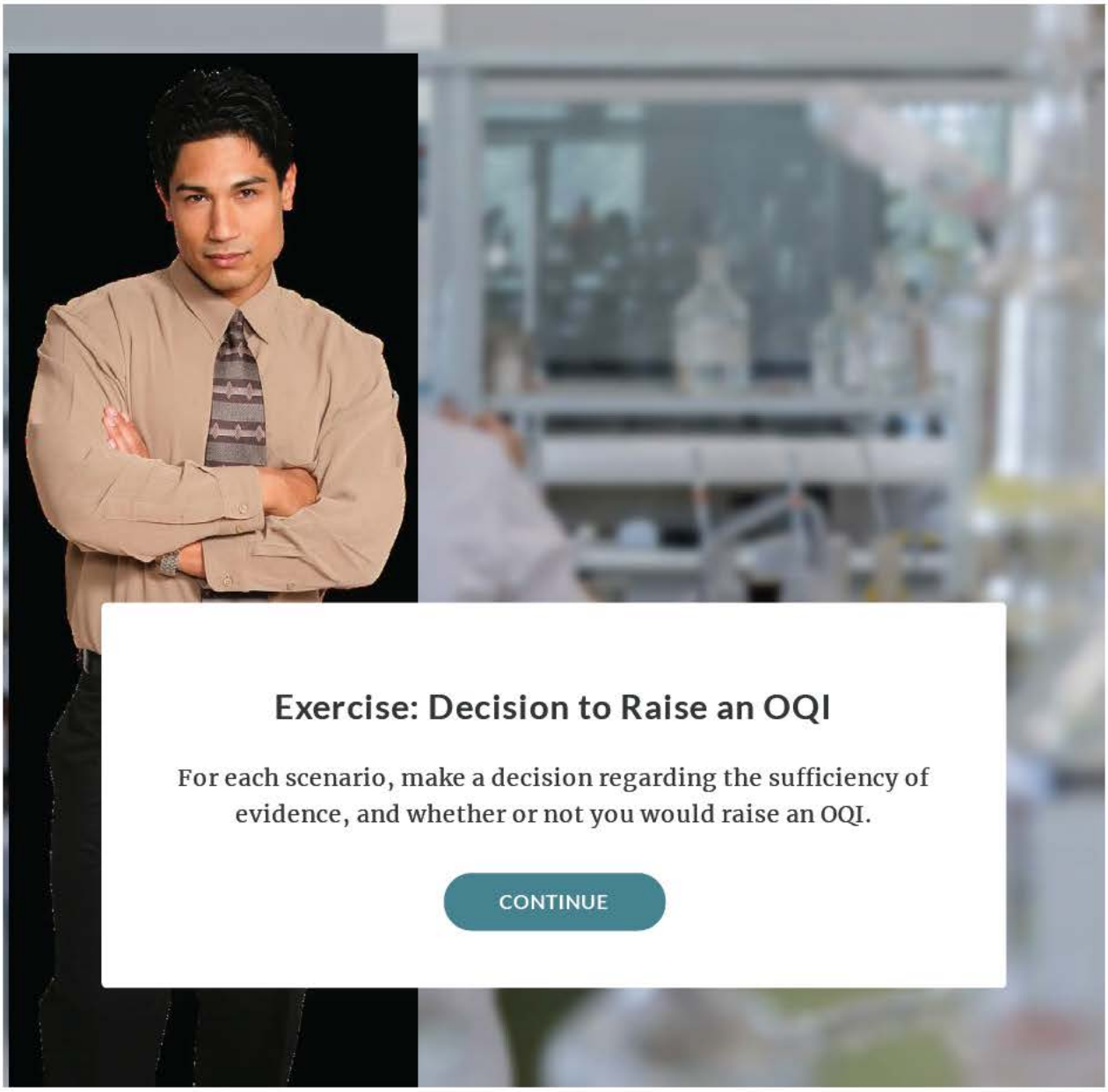
"What could be the impact of the non-conformity or problem for FSS?"

Client	Does it affect client satisfaction?
Product	Does it result in higher costs, repeat testing, recollections?

Environment	Does it have a potential harmful effect on the environment?
Cost	Does it increase costs?

Knowledge	Does everyone have access to appropriate information?

CONTINUE



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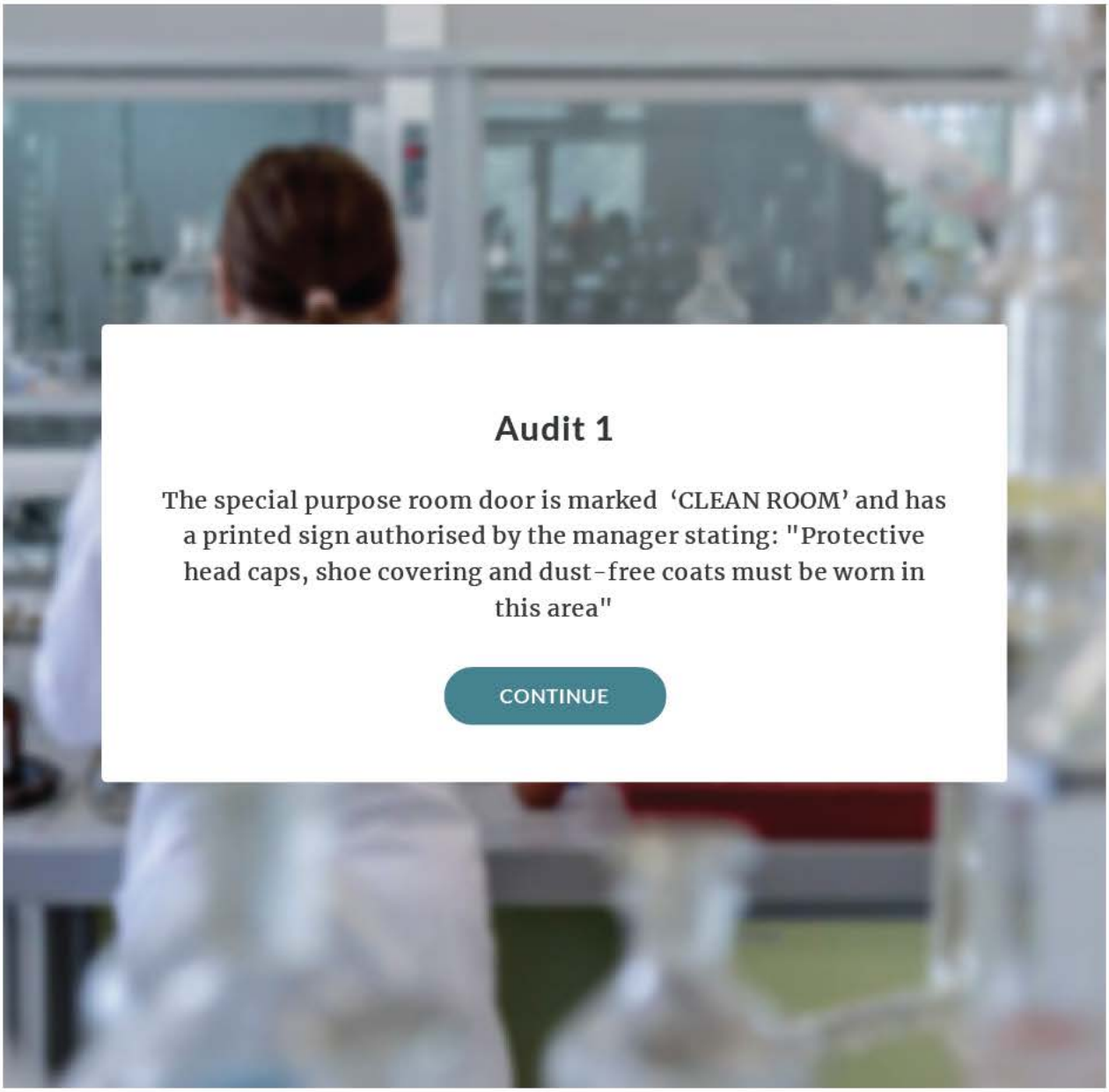

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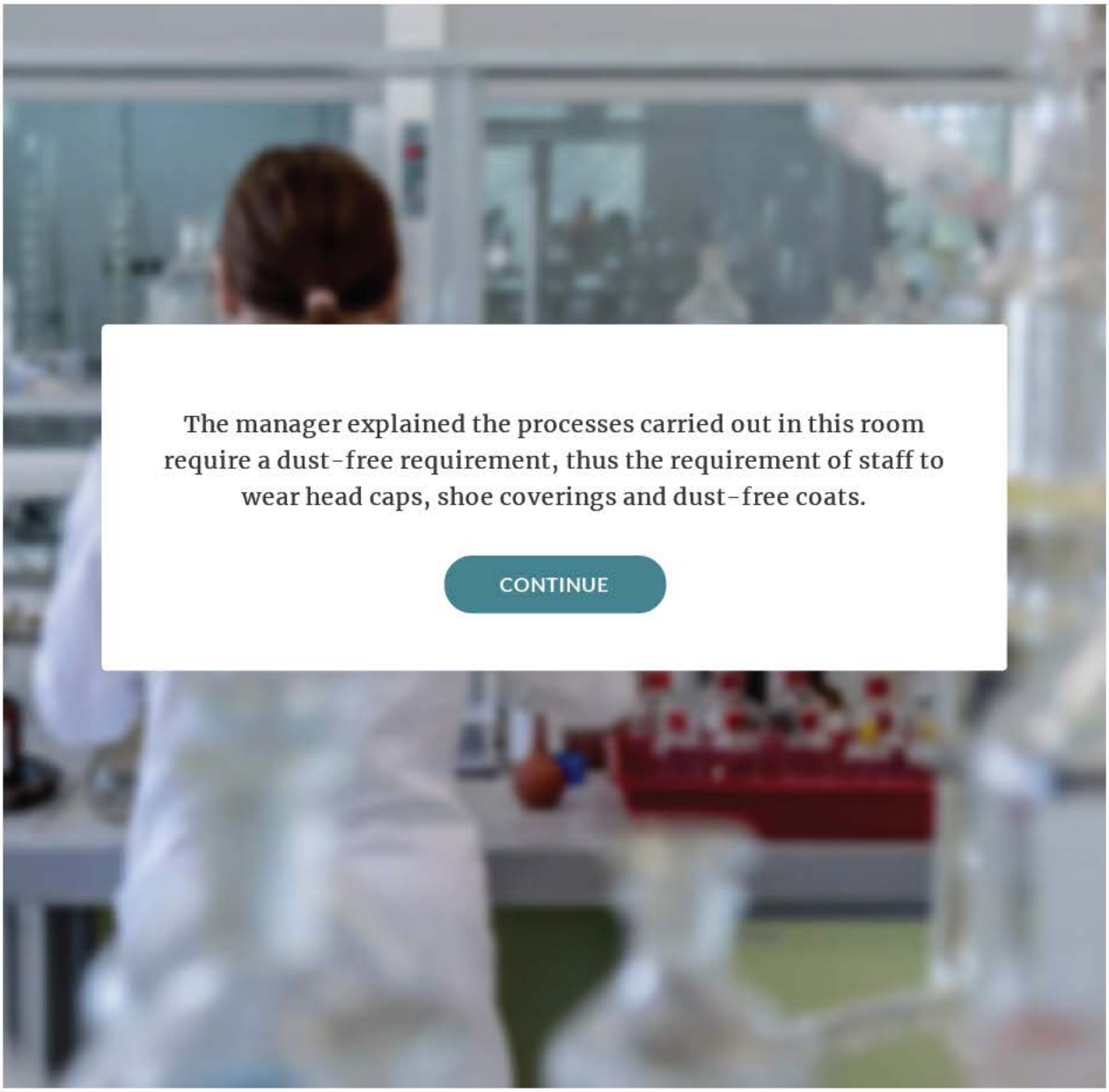

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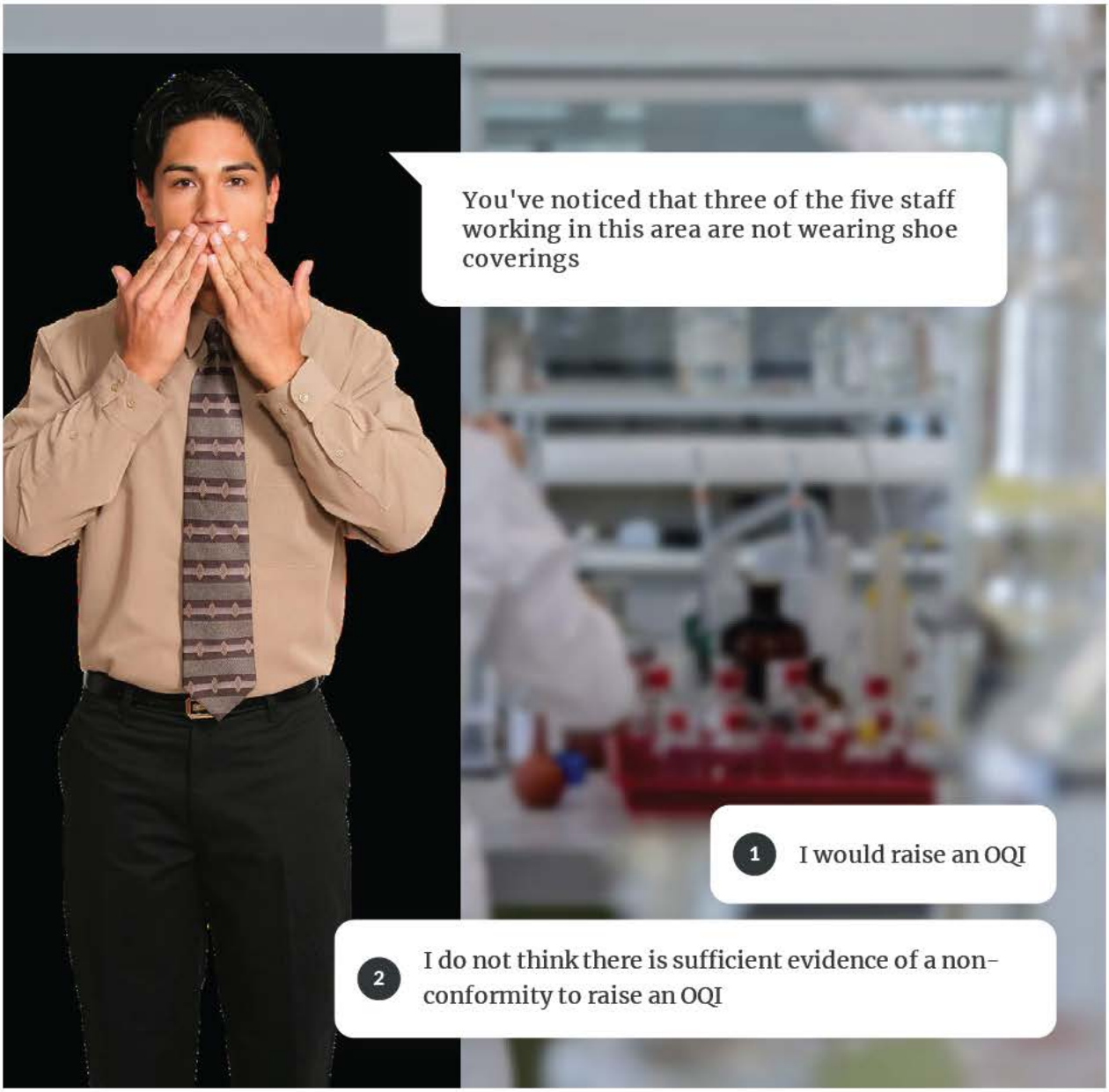

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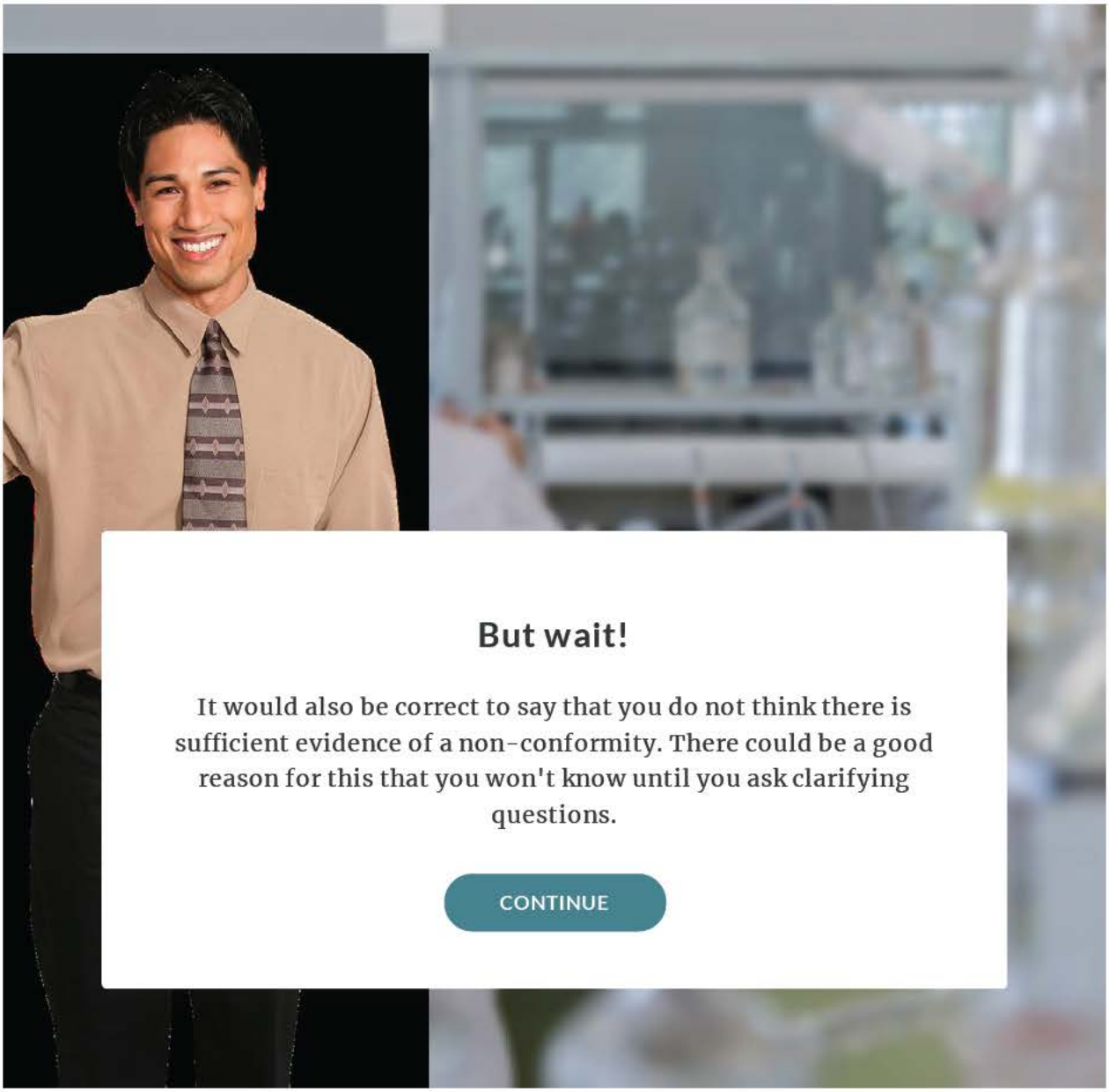

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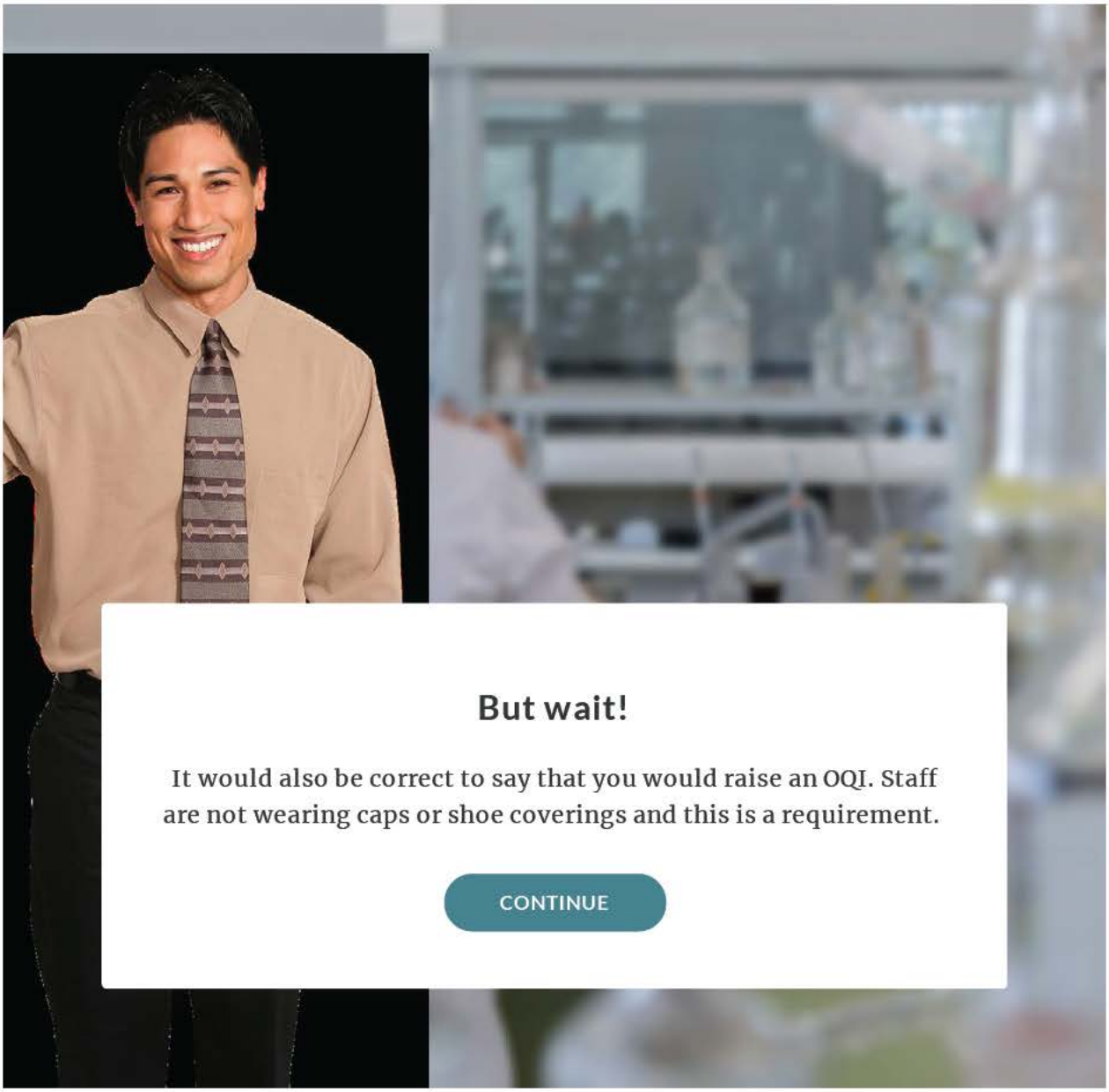

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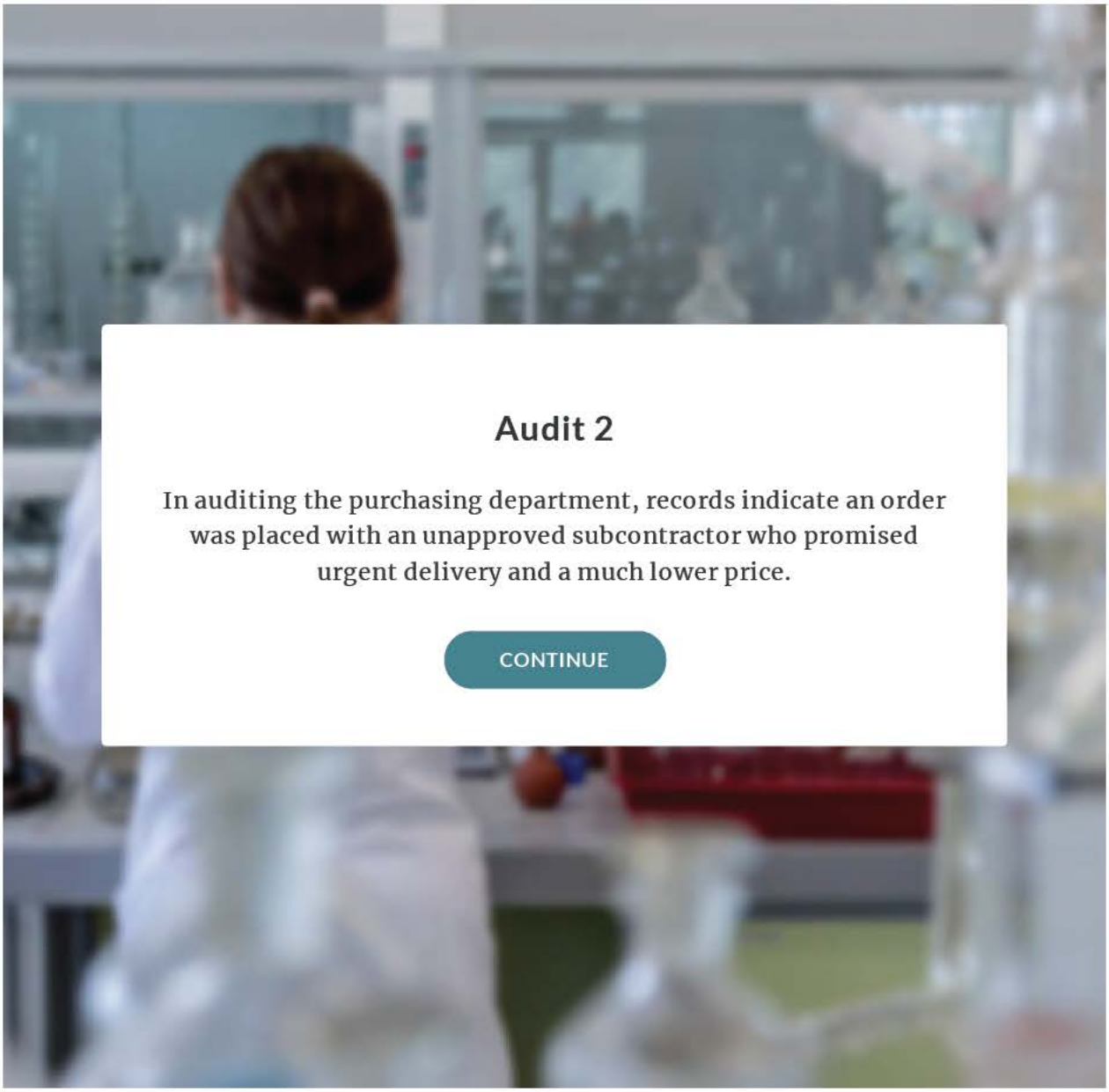

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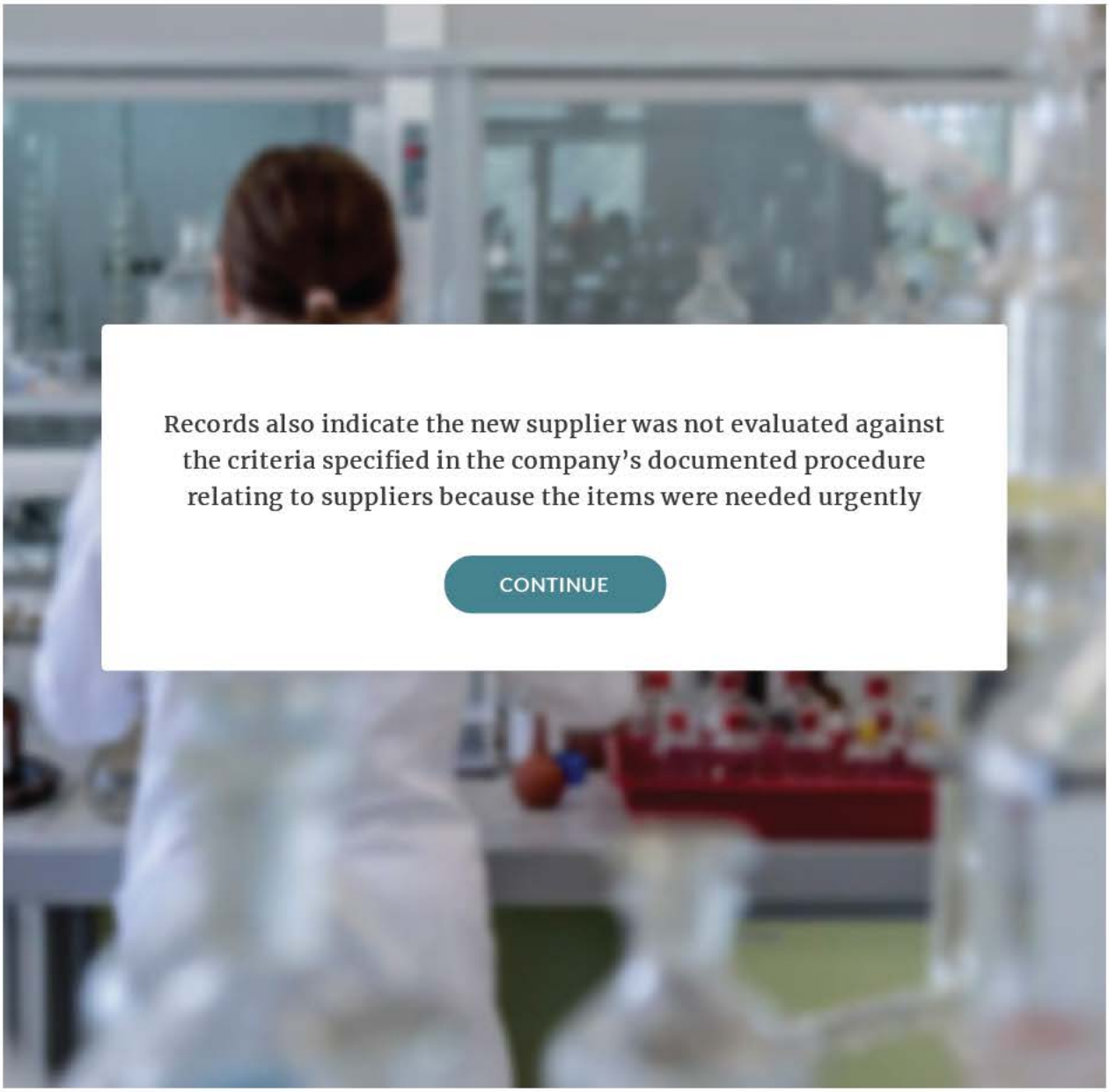

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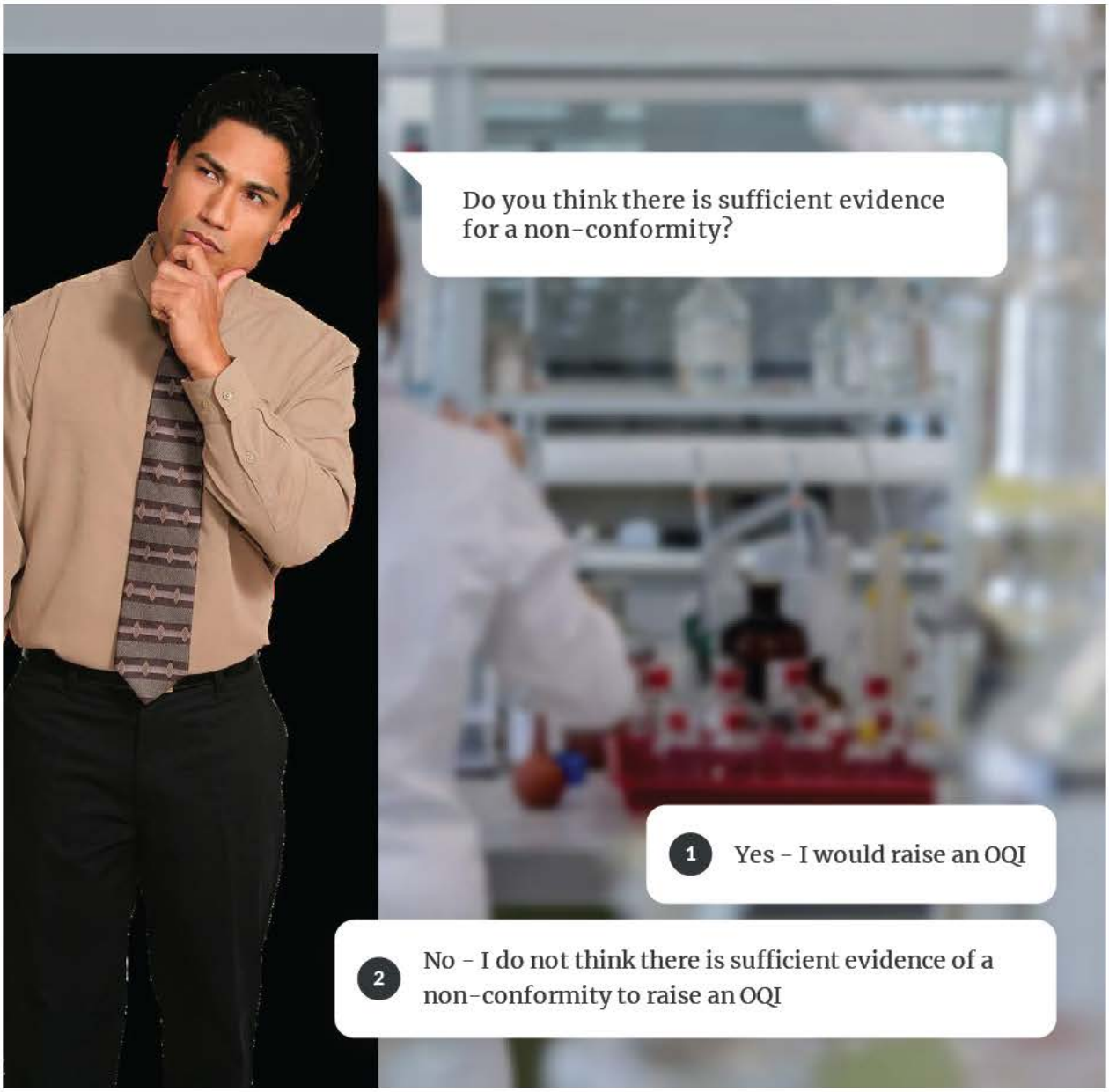

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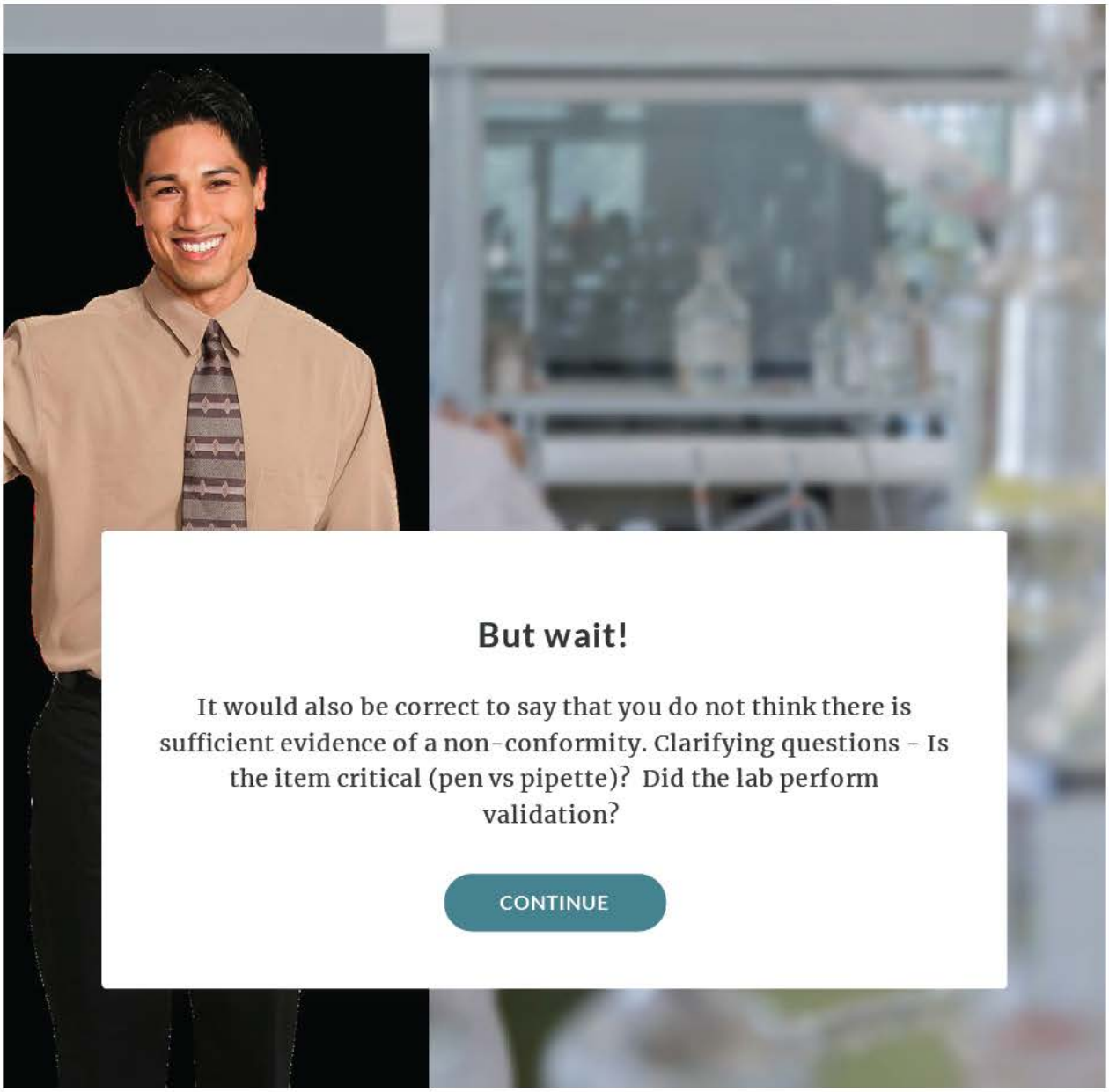

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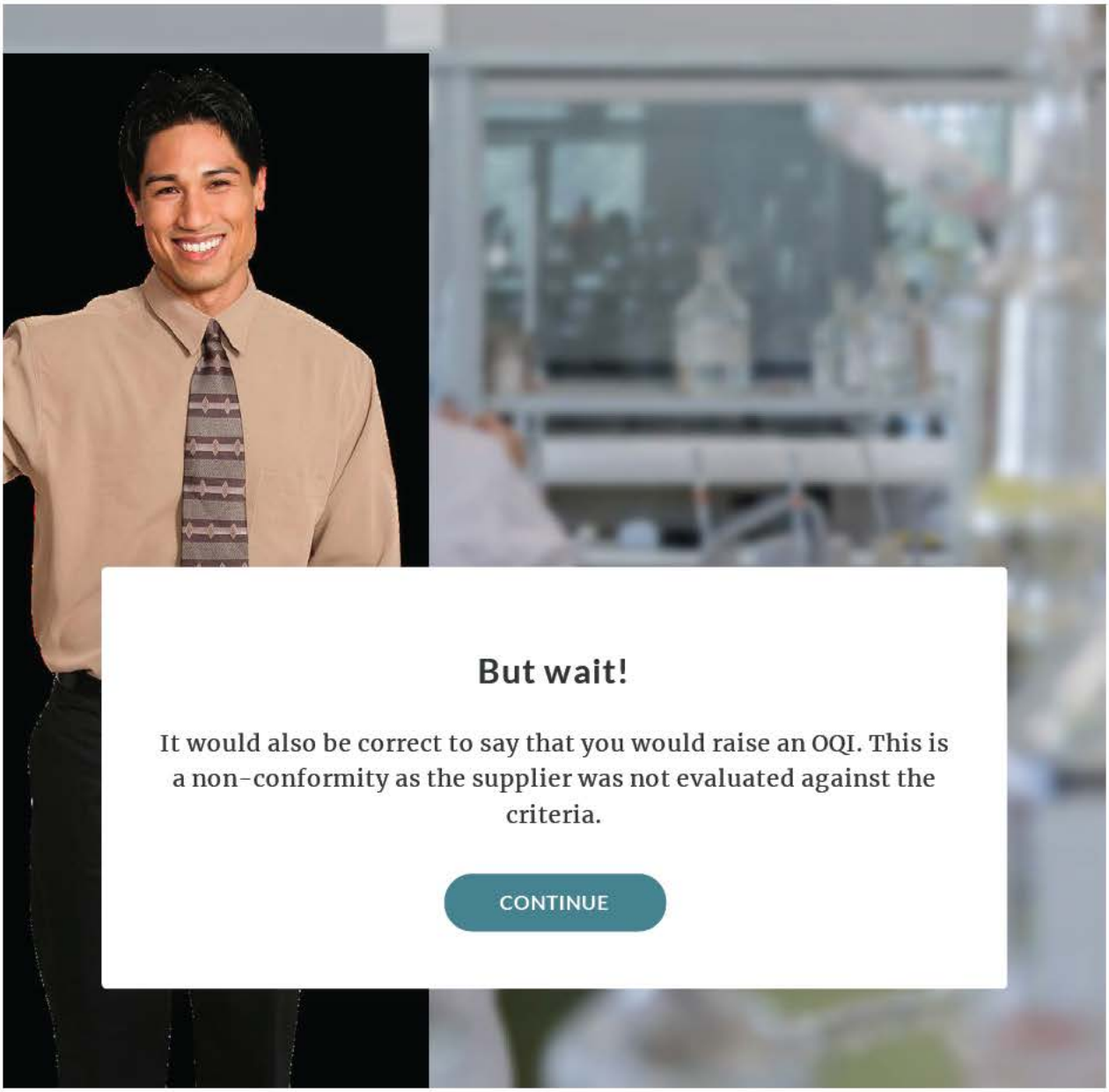

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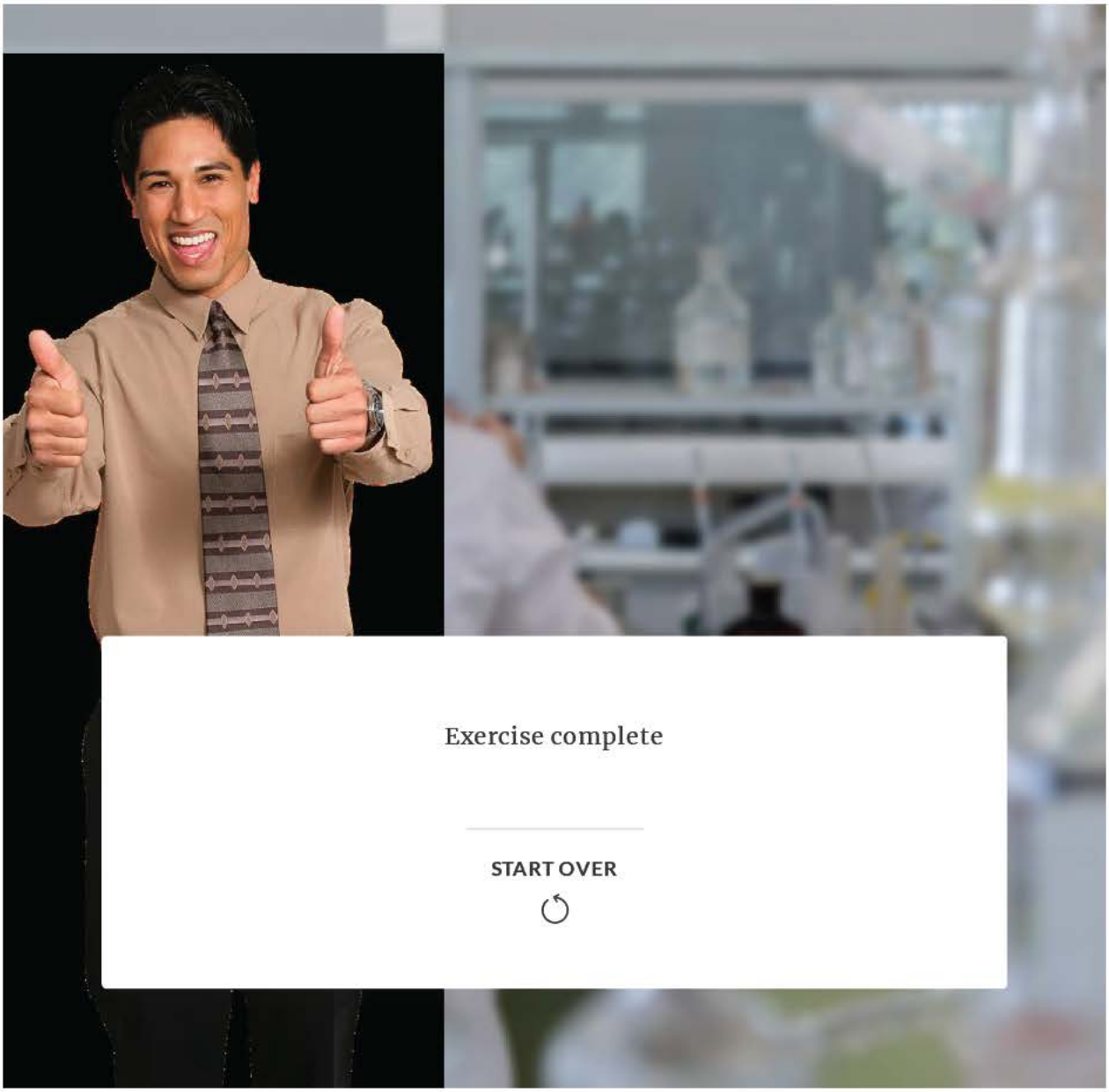


Scene 1 Slide 12

Continue → End of Scenario

CONTINUE

Step 3: Summarise Findings

Before leaving the audit, ensure feedback is given at a closing meeting. This can be informal with the auditee or more formal with the supervisor/team leader.

- A **brief summary** of what was examined (objective and scope)
- An **overall opinion** on the quality aspects within the areas examined
- **Positive** findings of practices observed
- With any occurrences of **failure to comply** with requirements, **discuss** whether these are isolated or systematic
- As necessary, **share the objective evidence** to substantiate any occurrences of failure (non-conformances) to comply with requirements
- **Resolution** of any areas of disagreement over the conclusions
- Explain that you will write the **report**, add any **OQIs** in QIS, and that the audit contact will be notified when this is available
- **Thank** everyone for their time

Continue to Stage 3: Reporting

Lesson 11 of 14

Stage 3: Reporting

STEP 1: WRITE AUDIT REPORT | STEP 2: RAISE AN OQI

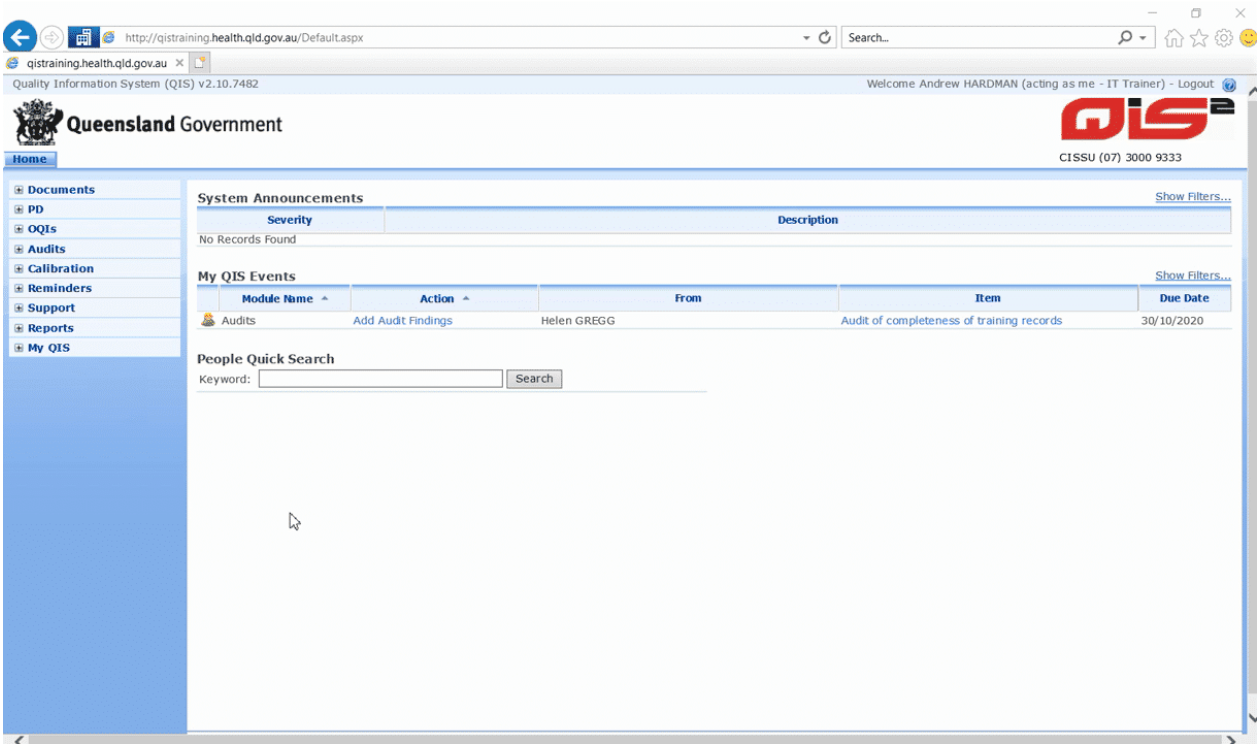
It is a good practice to write up the final report (and any OQIs) in QIS after discussing the findings at the closing meeting. This will prevent any misunderstandings and will help the audit process to be more effective.
Follow the format used at the closing meeting

- Objective and scope
- Overall opinion
- Positive finding
- Failure to comply, with evidence, with reference to associated OQI(s)
- Thanks

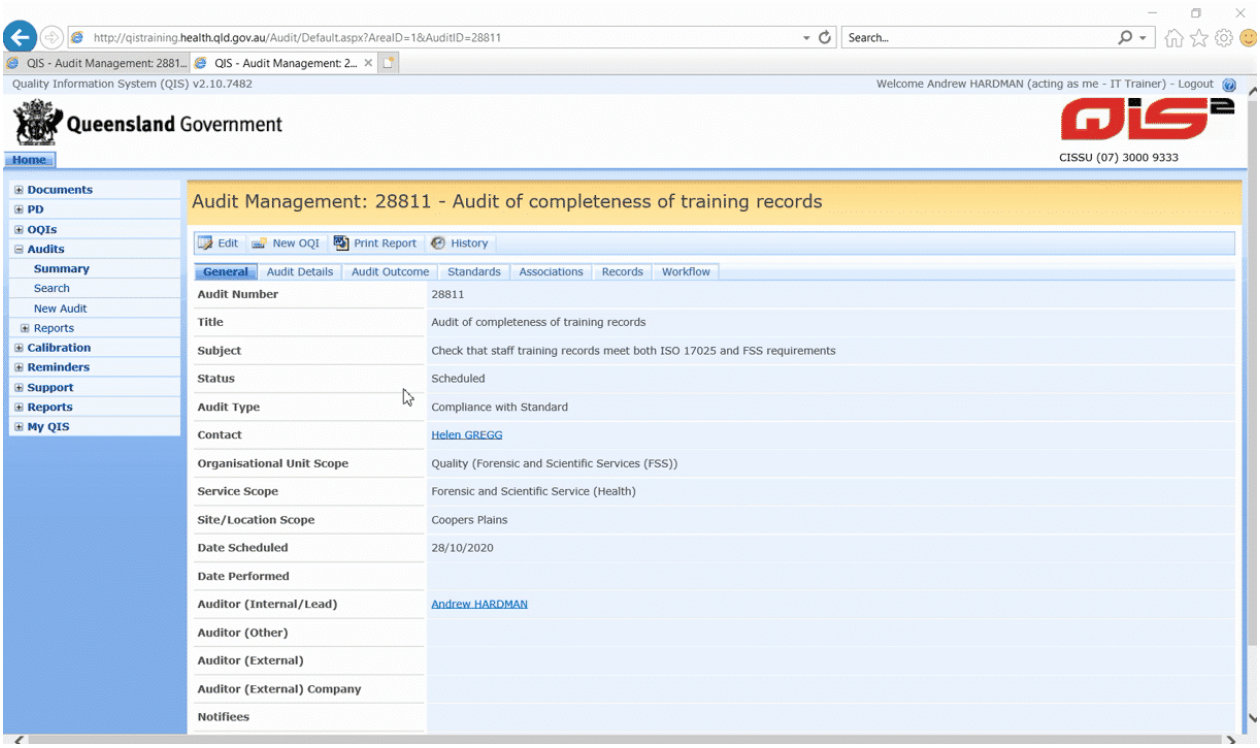
STEP 1: WRITE AUDIT REPORT | STEP 2: RAISE AN OQI

OQI's are automatically linked to the audit report – this shows the connection between the audit findings and the actions arising.

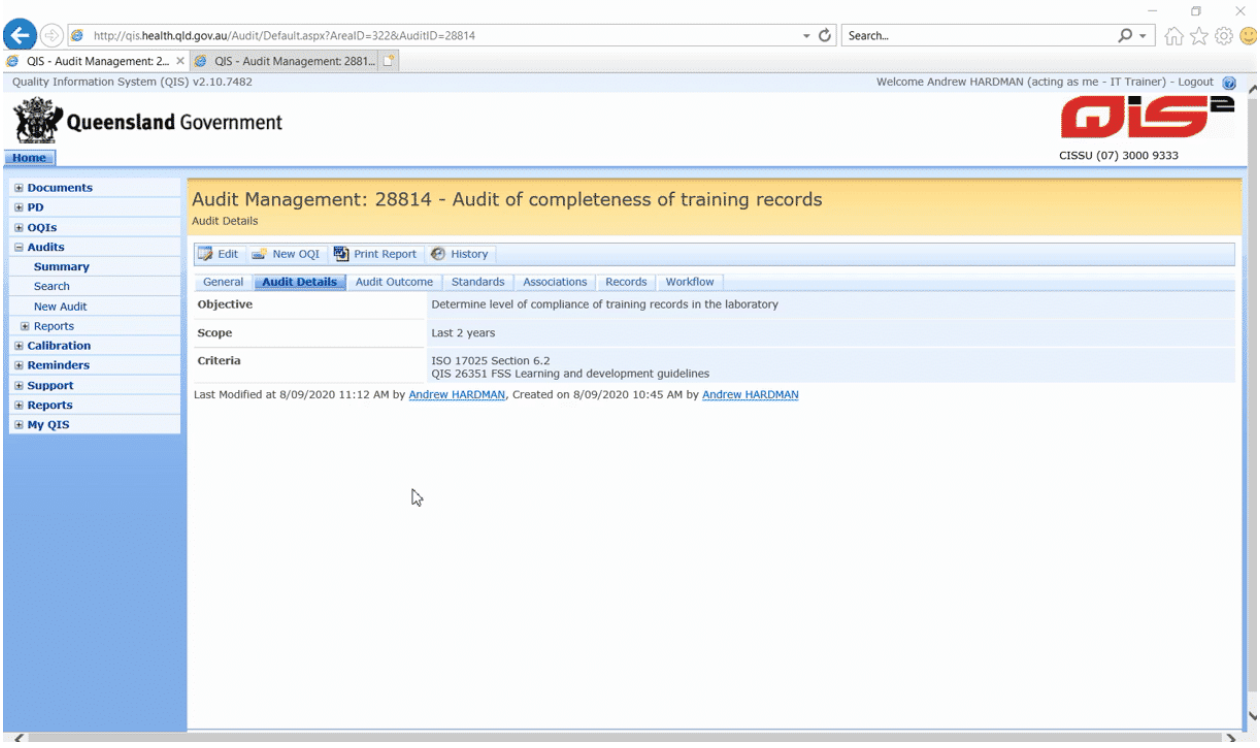
Using QIS: Check Audit Details



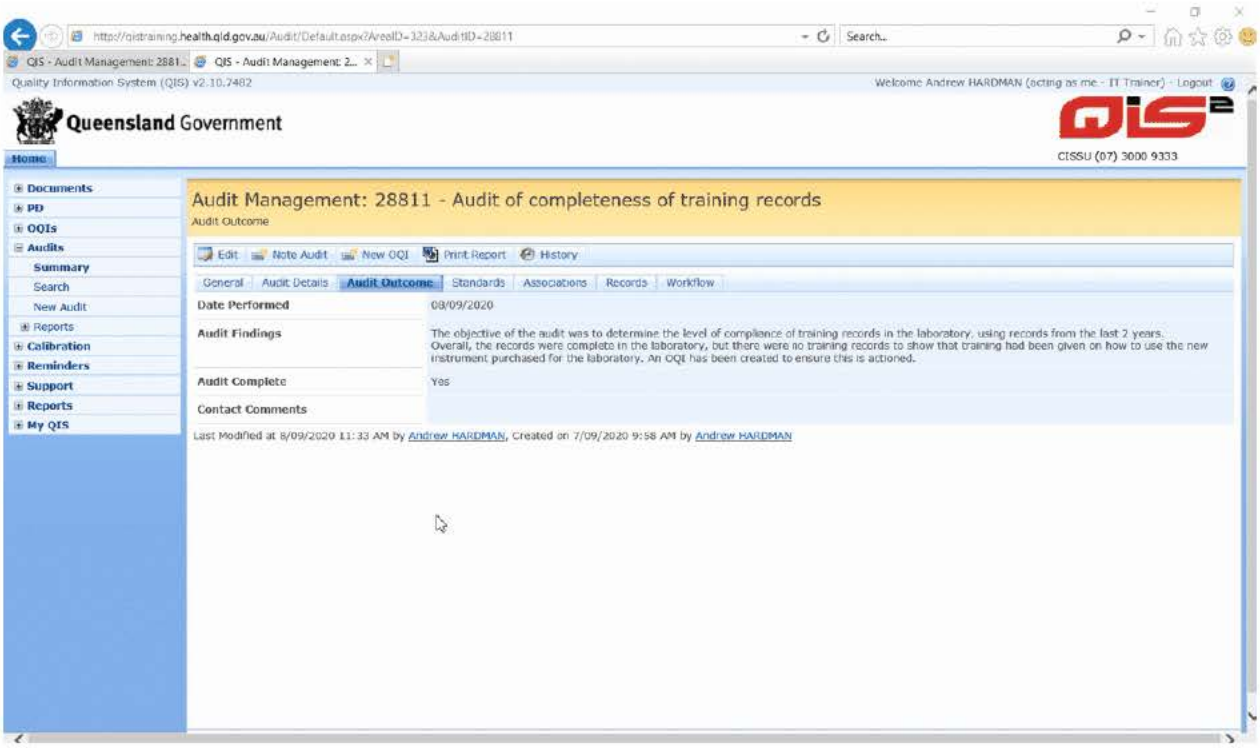
Using QIS: Update Audit Details



Using QIS: Add Audit Findings



Using QIS: Create an OQI



Continue to Stage 4: Audit Follow Up

Stage 4: Audit Follow Up

Responsibilities

Actioner: has the responsibility to address the OQIs raised by the auditor within a reasonable time frame and update the record in QIS.

Auditor: after the actioner has addressed the OQIs, the auditor will follow up and evaluate the effectiveness of the actions and accept (or reject) the actions in QIS.

If you are not happy with the response to the OQI, refer the matter to the FSS Quality Manager.

Scenario 1

Description: The temperature of the food-complaints fridge and the reagent fridge must be monitored on a daily basis.

Source of OQI: NATA/NCSI/Regulatory Condition

Investigation: Fridge temperatures have been recorded using data logger to set up base lines and check performance. Temperatures of refrigerators and freezers including the walk-in fridge and freezers were within acceptable range, except for the reagent fridge (QH asset no 30433070).

Action: Reagent fridge needs to be replaced. Temperature monitors and alarms to be fitted to both when new fridge is installed

Would you accept this action?

- ○ Yes
- ○ No

SUBMIT

Scenario 2

Description: Minor non-conformity: CSPs have not been conducted in over 18mths

Investigation: This has been prioritised as a high priority area and I am putting in place a schedule to address this as soon as possible.

Action: I have commenced CSPs on my staff. Documentation has been given out to a number of staff and I am now awaiting them telling me that they are ready to go.

Would you accept this action?

- ○ Yes

○ No

SUBMIT

CONTINUE

Management Review

After the audit has been completed, the audit findings should be discussed at an appropriate meeting (e.g. team meeting, quality meeting, Quality Community of Practice etc).

The audit process evaluation should also consider the overall nature of non-conformities to determine if there are systematic errors such as:

- lack of training
- procedures not updated
- organisational change
- poor communication
- accessibility of information
- lack of resources
- equipment capability

When the management review process evaluates these generic problems, efforts should be made to address the systematic weaknesses, rather than the isolated series of incidents.

The internal audit process itself should be reviewed in relation to the value-adding contribution it makes to the business.

Continue to Key Points

Lesson 13 of 14

Key Points and Conclusion

Key Points

- All systems deteriorate if no control is applied to them. The audit process helps to maintain and improve the integrity of quality systems.
- Three key steps are:

    1. obtaining sufficient evidence
    2. evaluating the evidence
    3. drawing conclusions about the state of the system

- The approach should be such that both parties see the process as positive and rewarding
- The benefits of auditing can be greatly enhanced if it is seen as a learning experience at a number of levels
- A good auditor has a high level of expertise in interpersonal communication skills
- Audit reports should be prepared professionally and should not contain any surprises

If the audits are carried out competently and with the correct approach and commitment, the effects of the internal audit can be many, including;

- **Giving confidence to clients, as well as to management and staff**
- **Creating ongoing improvements, practices and procedures**

Continue on to the Knowledge Check Quiz to complete your training.

Lesson 14 of 14

Knowledge Check Quiz

To ensure your understanding of the training material, you are required to complete this quiz with a passing score of 80%.

Question

01/14

What are the **three** different types of audits?

- [ ] Compliance
- [ ] Horizontal
- [ ] Vertical
- [ ] Process
- [ ] Input-Output

Question

02/14

What is an audit scope?

- Defines what is to be accomplished by the audit e.g. determine extent of conformity etc.
- Requirement against which the activities or products are being compared e.g. ISO 17025 Standard
- Describes the extent and boundaries of the audit such as physical locations, organisational units, activities and processes to be audited and the time period

Question

03/14

What is an audit objective?

- Describes the extent and boundaries of the audit such as physical locations, organisational units, activities and processes to be audited and the time period
- Requirement against which the activities or products are being compared e.g. ISO 17025 Standard
- Defines what is to be accomplished by the audit e.g. determine extent of conformity etc.

Question

04/14

What is the audit criteria?

- Describes the extent and boundaries of the audit such as physical locations, organisational units, activities and processes to be audited and the time period
- Requirement against which the activities or products are being compared e.g. ISO 17025 Standard
- Defines what is to be accomplished by the audit e.g. determine extent of conformity etc.

Question

05/14

What is the QIS document number of the audit checklist template?

- ○ 19145
- ○ 19130
- ○ 20088
- ○ 20030

Question

06/14

A process is any activity or set of activities that uses resources to transform _____ into outputs.

Type your answer here

Question

07/14

What is the correct order of steps in the Performance stage?

2	Introduction
3	Conducting the audit
1	Summarise findings/ closing meeting

Question

08/14

What is the correct order of the four stages of an audit?

1	Preparation
4	Performance
3	Reporting
2	Audit Follow Up

Question

09/14

What are the points that should be covered in the final audit report?

- [ ] Objective and Scope
- [ ] Audit Criteria
- [ ] Overall Opinion
- [ ] Non-compliance (with evidence and reference to associated OQI/s)
- [ ] Compliance/ Positive Findings
- [ ] Thanks

Question

10/14

Under what criteria are audits usually assigned by the team leader (or delegate)?

- [ ] Knowledge of the area to be audited
- [ ] Availability
- [ ] Objective and scope of the audit

Question

11/14

Internal audits can be used to determine the existence and/or adequacy of controls.

- ◯ True
- ◯ False

Question

12/14

Audits can determine the ongoing effectiveness of controls and whether any additional controls need to be implemented.

- ◯ True
- ◯ False

Question

13/14

Performing a quality risk assessment of the process you are auditing helps to determine whether this step in the process should be a focus of the audit.

- ◯ True
- ◯ False

Question

14/14

What type of audit is the most effective at determining potential risks and interactions with other processes and activities?

Type your answer here

OrgDefinedId	Last Name	First Name	Active (automatic enrollment)
[redacted]	Petry	Stephan	Group 2
	Peter	Tony	Group 2
	Blakey	Karen	Group 2
	Wermuth	Urs	Group 4
	Tam	Jenny	Group 2
	Watson	Drew	Group 5
	Cotton	Marcus	Group 5
	Yang	Xiaohong	Group 4
	Huang	Daphne	Group 5
	Acedo	Pierre	Group 2
	Hynard	Nikole	Group 3
	Le	Kerri	Group 3
	Ryan	Abigail	Group 3
	Kelly	Cassandra	Group 2
	Harrison	Elizabeth	Group 5
	Anuj	Shalona	Group 3
	Adebajo	Adedoyin	Group 3
	Komarova	Tatiana	Group 1
	Atkinson	Sarah	Group 3
	Herse	Jeffrey	Group 5
	Heading	Ellena	Group 2
	Thompson	Amanda	Group 5
	Bergeon	Julie	Group 1
	Nikolakopoulos	Dimitri	Group 2
	Griffiths	Andrew	Group 4
	Morgan	Amy	Group 3
	Campbell	Saxon	Group 3
	Johnston	Danielle	
	Morton	Kristina	Group 1
	Mullins	Sarah	Group 3
	Savage	Chelsea	Group 3
	De Jong	Amanda	Group 5
	Pillai	Mathew	Group 2
	Batson	Hazel	Group 3
	Rathnayake	Irani	Group 1
	Roselt	Nicole	Group 5
	Nair	Neelima	Group 4
	Sandhu	Sumeet	Group 1
	Leckie	Lisa	Group 2
	Angus	Chantal	Group 4
	Kakkanat	Asha	Group 1
	La Spina	Courtney	Group 3
	Gamez	Elisabeth	
	Wiggins	Matthew	Group 5
	Sant	Sonia	Group 4
	Stringfellow	Caitlin	Group 1
	Nieradzik	Ludwika	Group 3
	Kahlon	Pam	Group 1
	Nguyen	Tuyet	Group 1

Authorisation to Perform Work Scheme Symbol	Date of Authorisation to Perform Work Text Grad
Recognition of Current Competency	24/09/2020
Recognition of Current Competency	22/11/2017
Recognition of Current Competency	2/09/2019
Recognition of Attendance	22/08/2017
Recognition of Current Competency	22/9/2021
Recognition of Current Competency	
Recognition of Attendance	22/08/2017
Recognition of Current Competency	13/08/2019
Recognition of Current Competency	14/09/2020
Recognition of Attendance	27/08/2019
Recognition of Attendance	13/02/2018
Recognition of Current Competency	27/08/2019
Competent	12/07/2021
Recognition of Current Competency	4/06/2020
Recognition of Current Competency	30/09/2020
Recognition of Current Competency	1/06/2020
Recognition of Current Competency	24/01/2019
Recognition of Current Competency	14/09/2020
Recognition of Attendance	13/02/2018
Recognition of Current Competency	23/02/2017
Recognition of Current Competency	27/08/2019
Recognition of Current Competency	22/08/2017
Recognition of Current Competency	22/08/2017
Recognition of Attendance	27/08/2019
Recognition of Current Competency	23/01/2018
Recognition of Current Competency	26/02/2019
Recognition of Attendance	23/02/2017
Recognition of Attendance	13/02/2018
Competent	30/3/2021
Recognition of Attendance	27/08/2019
Recognition of Competent to Train	20/05/2020
Recognition of Attendance	26/02/2019
Recognition of Current Competency	2/10/2020
Recognition of Current Competency	29/06/2021
Recognition of Attendance	27/08/2019
Recognition of Current Competency	13/02/2018
Recognition of Attendance	10/08/2018
Recognition of Attendance	27/08/2019
Recognition of Attendance	27/08/2019
Recognition of Current Competency	5/06/2019
Recognition of Attendance	27/08/2019
Recognition of Attendance	26/02/2019
Competent	17/02/2021
Competent	22/3/2021
Competent	18/11/2020
Competent	4/5/2022
Competent	12/04/2021
Recognition of Attendance	23/02/2017
Recognition of Current Competency	18/02/2020

RCC or CTT Submission Scheme Symbol
Recognition of Current Competency
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Recognition of Attendance
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Recognition of Attendance
-
Recognition of Attendance
Recognition of Current Competency

Forensic and Scientific Services

Quality status report

1 – 30 April 2022

External Assessments	
Upcoming	•
Completed	•

Risks
-
Issues
-

Quality Indicators

(Percentages are based on number scheduled in the time period. Overdue document % is based on number of active documents)

	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec/Jan 2021	Feb 2022	Mar 2022	Apr 2022	Target
Audits Overdue >30 days§	25 (5%)	29 (5%)	29 (5%)	29 (5%)	28 (5%)	26 (5%)	26 (5%)	25 (4%)	20 (3%)	33 (5%)	20 (9%)	<35
Overdue calibrations >30 days***	165 (24%)	195 (28%)	219 (31%)	197 (28%)	137 (19%)	138 (20%)	129 (19%)	138 (18%)	227 (31%)	191 (25%)	128**** (20%)	<100
Critical documents overdue >30 days*	4	5	3	4	4	5	3	3	3	2	1	<2
Critical OQI's open >30 days**	0	0	0	1	1	1	1	1	2	4	4	0
External agency audit major non-conformances open >30 days	0	0	0	0	0	0	0	1	4	1	0	0
%CSP's open	47%	44%	47%	49%	43%	45%	44%	40%	46%	50%	51%	>80%

§ These figures exclude OH&S Inspections and risk assessments
* Critical documents are business continuity, emergency preparedness etc. Includes documents in draft
** Critical OQIs are external complaints and clinical incidents. See below for other details.
*** Includes equipment in Forensic Register
**** These stat do not include FR overdue calibrations

Queensland Government

Document Review

- **Critical documents overdue >30 days**

Doc Number	Status	Title	Area
28966	Overdue 42 days	Business continuity plan	Records Management

OQI Review

- **Critical OQI's open >30 days**

OQI Number	To	Content	Date added
55902	Mortuary	Failure to release deceased property	19/01/2022
56002	Mortuary	Incorrect sendaway registration process	15/02/2022
56039	Mortuary	Empty container sent for testing	24/02/2022
56330	CFMU	Riskman CI 4026274 - Brisbane Watchhouse	14/02/2022

- **Complaints**

OQI Number	From	To	Content
56211	A/ED Communicable Diseases	Public Health Virology	Mosquito testing FSS

Forensic and Scientific Services

Quality status report

1 – 31 March 2022

External Assessments	
Upcoming	• Forensic Pathology 4 May
Completed	• Nil

Risks
- Nil
Issues
- As per last month – almost every quality indicator is reporting red. Action is required for overdue calibrations, critical documents, critical OQIs and CSPs

Quality Indicators

(Percentages are based on number scheduled in the time period. Overdue document % is based on number of active documents)

	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec/Jan 2021	Feb 2022	Mar 2022	Target
Audits Overdue >30 days§	32 (6%)	25 (5%)	29 (5%)	29 (5%)	29 (5%)	28 (5%)	26 (5%)	26 (5%)	25 (4%)	20 (3%)	33 (5%)	<35
Overdue cal brations >30 days***	157 (23%)	165 (24%)	195 (28%)	219 (31%)	197 (28%)	137 (19%)	138 (20%)	129 (19%)	138 (18%)	227 (31%)	191 (25%)	<100
Critical documents overdue >30 days*	4	4	5	3	4	4	5	3	3	3	2	<2
Critical OQI's open >30 days**	0	0	0	0	1	1	1	1	1	2	4	0
External agency audit major non-conformances open >30 days	0	0	0	0	0	0	0	0	1	4	1	0
%CSP's open	52%	47%	44%	47%	49%	43%	45%	44%	40%	46%	50%	>80%

§ These figures exclude OH&S Inspections and risk assessments
* Critical documents are business continuity, emergency preparedness etc. Includes documents in draft
** Critical OQIs are external complaints and clinical incidents. See below for other details.
*** Includes equipment in Forensic Register

Document Review

- **Critical documents overdue >30 days**

Doc Number	Status	Title	Area
28631	Overdue 320 days	Business continuity plan	Facilities Management
30516	Overdue 349 days	Emergency Response Plan and Procedures	CFMU

Queensland Government

OQI Review

- **Critical OQI's open >30 days**

OQI Number	To	Content	Date added
55126	Forensic Pathology	Inappropriate categorisation of tissue	30/07/2021 *training underway to address this issue
55902	Mortuary	Failure to release deceased property	19/01/2022
56002	Mortuary	Incorrect sendaway registration process	15/02/2022
56039	Mortuary	Empty container sent for testing	24/02/2022

- **External Agency major non-conformances open >30 days**

OQI Number	To	Content	Date added
55853	Inorganic Chem	NATA chem major: external QAP or equivalent for particle size distribution	04/01/2022

- **Compliments**

OQI Number	From	To	Content
56107	ASM Clinical Microbiology Special Interest Group	Public Health Microbiology	Compliments on talks and hosting of ASM Clinical Microbiology Special Interest Group

- **Complaints**

OQI Number	From	To	Content
56106	Banana Shire Council	Public Health Microbiology	Bottle supply issue causing negative customer feedback

Queensland Health

Quality Management Review

Forensic and Scientific Services

Queensland Government

Contents

Figures

Tables

1. Background

Quality management review is a requirement of laboratory accreditation and certification but is also an opportunity for the organisation to review risks and opportunities, identify trends and determine areas for improvement.

The 2021 Quality Management Review was conducted as a 'bottom up' approach, with a standard questionnaire emailed to all business areas to provide input (appendix 1). This was then collated and summarised into this report.

2. Review of quality commitment

The FSS quality commitment is published on QIS (33322) and is readily available on the FSS staff website. For convenience, it is included in this document at appendix 2.

No changes are suggested to the FSS quality commitment as the statements remain relevant to the business.

3. Suitability of policies and procedures

The *Medicines and Poisons Act 2019* (MPA) and supporting regulations started 27th September 2021, resulting in schedule 8 drugs no longer needing to be sent to FSS for destruction. FSS has six months to appoint state analysts under the new Act. The *Medicines and Poisons Act 2019* (MPA) repeals and replaces the *Health Act 1937* and the *Pest Management Act 2001.*

The Health Employment Directive No. 12/21 came into effect 11 September 2021 and outlined the COVID-19 vaccination requirements for existing and prospective employees. FSS has complied with this directive.

4. Assessment by external bodies

FSS was assessed by external bodies as outlined in table 1.

All non-conformances identified in assessments by external bodies in 2021 have been actioned, and actions taken have been mostly sustainable and effective. Some non-conformances are still being actioned or require monitoring over time

- Organic Chemistry - standard preparation and expiry dates, validation review process, and infrequent testing process
- Forensic Imaging and Sampling – Training and acknowledgement for RCPA QAP survey results
- Inorganic Chemistry – CISSU change request submitted for comment to be added to sample submission form to cover agreement with client regarding decision rule (letters have been sent to clients in lieu of this)
- Public Health Virology – Actini servicing

Results of assessments of other laboratories were provided to the FSS Quality Community of Practice and reviewed to ensure no adverse implications.

NATA continues to struggle to find assessors, with availability being affected by COVID-19 restrictions across Australia. Assessments pending from 2021 are

- Medical Testing: Microbiology and Virology laboratories – scheduled for October 2021
- Chemical Testing: Organics, Inorganics and RNSU – scheduled for December 2021
- Reference Material Testing: Forensic Toxicology – awaiting date to be scheduled

No adverse findings are expected from these assessments.

New requirements for AQIS (BC2) laboratories came into effect 1 January 2021. Internal audits were conducted to ensure compliance, and extensive work was done to ensure BSCII cabinets and autoclaves complied with the new requirements. Transition audits were conducted by the Department from May to September 2021, with all laboratories passing. FSS were praised for their preparation, with the Department stating that FSS had significantly less non-conformances compared with other facilities.

AQIS approval for the Microbiology PC2 (room 3146) was requested to be revoked as the room was no longer required. This was granted in June 2021 after a final close-out inspection conducted remotely.

A variation request has been submitted for the Virology Actini servicing to ensure the tasks performed and documentation provided by the service provider comply with requirements. The 2020 service was not satisfactory, and arrangements for the 2021 service need to be finalised before it can proceed.

Table 1 External assessments since last management review

Date	Assessment details	Area	Non-conformances	Suggestions	Outcome
December 2020	NATA ISO 17025	Forensic DNA Analysis Forensic Toxicology Forensic Chemistry	2 Maintenance of visitor records Amendments to records signed and dated	0	Continued accreditation
February 2021	ISO 9001	Radiation and Nuclear Science	0	2 Inclusion of more details in internal audit reports Inclusion of uncertainty in calculations would provide more accurate results	Continued certification
April 2021	NATA ISO 17025	Public Health Microbiology – POVA calibration addition to scope	2 Update SOP in line with standard method Records of peer review prior to authorisation	3 Balance label in more visual location Update of training records Maintain checking of spreadsheet formula	Addition to scope granted
May 2021	AQIS	Virology PC3	0	0	Continued approval
May 2021	AQIS	Virology PC2	0	6 Updated staff list Updated site plan Waste storage records Autoclave validation records (placement of probes and indicators) Profiling of BSCII Autoclave validation	Successful transition to new requirements
June 2021	AQIS	Organic Chemistry Inorganic Chemistry	0	1 Profiling of BSCII	Successful transition to new requirements
June 2021	AQIS	Micro PC3	0	0	Continued approval
June 2021	AQIS	Micro PC2	0	0	Revoked - voluntary
July 2021	AQIS	Virology PC3 (Animal House)	3 Actini air leakage Record of prefilter clean Actini servicing incomplete	0	In progress – Delays in Actini servicing due to service provider
September 2021	NATA ISO 17025 Biological	Organic Chemistry Public Health Microbiology	18 Revise methods in use table Intermediate checks on equipment Checks on IR thermometer gun Records for batch identification of buffer	0	In progress

			Revision of SOPs (7) Definitions in SOPS (2) Instructions of QC outlier Review of MU Units of measurement on report Spiked sample identified on report Control of spreadsheet		
September 2021	AQIS	Micro and Lepto PC2	0	2 Profiling of BSCII 5 min run time post shutdown of BSCII	Successful transition to new requirements

5. Outcome of external proficiency trials and interlaboratory comparisons

Internal and external proficiency trials have mostly been conducted as planned in 2021. Coverage in Organic Chemistry continues to be difficult for analyte range, concentration and matrix, as the scope is large, some tests are infrequently performed, and PT providers are not always available. In addition, the in-house schedule, designed to cover gaps in the offerings has not continued in 2021 due to increasing workloads.

OQIs have been raised for PT outliers (n=16). This is similar to 2020 where the number of outliers was 13. Outliers were reported in Forensic Chemistry, Inorganic Chemistry, Public Health Microbiology, and Forensic DNA Analysis. Radiation and Nuclear Science raised an audit to investigate one of their outliers. Organic Chemistry is currently reviewing recording of investigations of z-scores between 2-3, and Forensic Imaging and Sampling is monitoring their QAP as there has been a recent decline compared to previous results although still satisfactory.

Nil areas of concern were reported from these outliers once they were investigated.

6. Feedback

6.1 Complaints

Five complaints were received in the 2021 calendar year to date. This is the same as the previous year. Average number of days open was 30, compared to 47 in 2020. This is a significant improvement, and for the first time, we have met our goal of 30 days. Details of the complaints are outlined in Table 2. No significant risks were identified, but it is noted that Forensic DNA Analysis had a large number of client complaints compared to previous years, all due to unintentional human error.

Table 2 Complaints received 2021

Area	Topic	Root cause	OQI #
Forensic DNA Analysis	Barcode with suffix in the result linked number field	Identified as human error. FR has been modified to prevent this occurring in the future. SOPs to be updated to reflect this.	54242
Forensic DNA Analysis	Reference sample update reported incorrectly	Identified as human error. Staff advised to break up monotonous tasks, SOP to be updated to use extra checks.	54379
Forensic DNA Analysis	Incorrect profile identified for reference sample	Identified as human error. Appropriate actions take for each sample affected. Team communication to highlight consequences of not following SOP.	54485
Public Health Microbiology	Incorrect information on S Enteritidis genomics report	Unintended human error Transcription error when manually transferring data from AUSLAB. Data is now acquired through data dump	54633

Forensic DNA Analysis	Incorrect reference sample	Identified as human error. Enhancements to the FR and staff communication.	55076

6.2 Compliments

53 compliments were received in the 2021 calendar year to date. This is much greater than the number of complaints and is a similar trend to other years. Compared to the same time period in 2020, the number of compliments has increased by 21.

Table 3 details which areas received compliments, and what these compliments were about. This is also graphically represented in Figure 1. Neither CFMU or Campus Support recorded any compliments.

Table 3 Compliments received

	PEH	Coronial Services	Police Services	Scientific Support
Excellent service delivery	8	7	2	9
COVID response	4	0	0	0
Fast turnaround time	3	0	2	0
Internal compliment	2	0	0	2
Outbreak testing	2	0	0	0
QAP performance	4	0	0	0
Recognition of FSS staff member	7	0	0	1

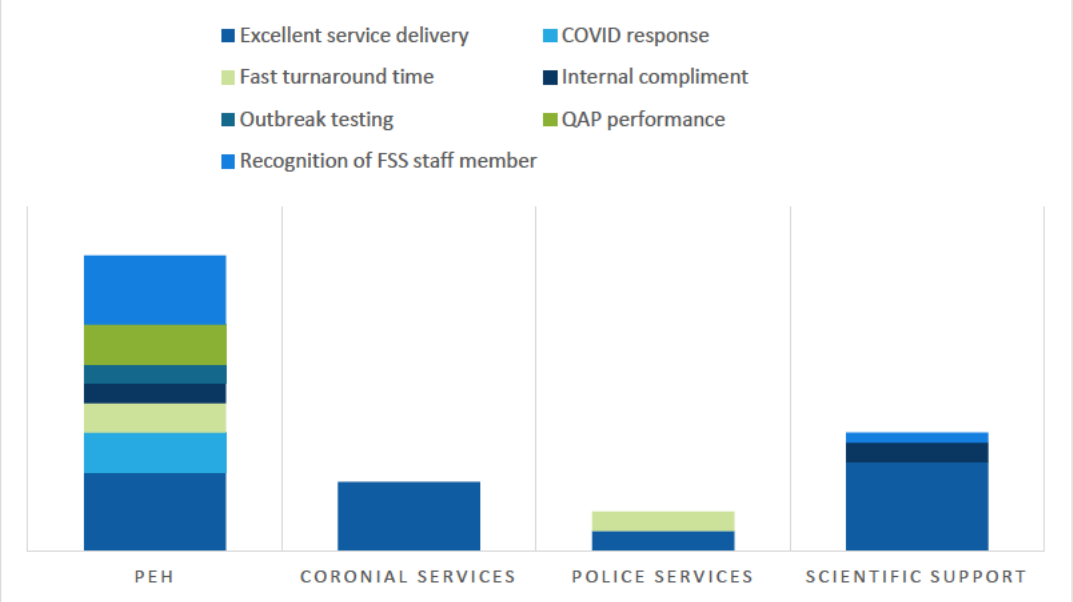


Figure 1 Compliments by area and topic

6.3 Staff feedback

FSS had a participation rate of 53% in the 2020 staff survey, down significantly from 76% in 2019. Figure 1 illustrates the organisational responses from the 2020 staff survey.

The 2021 staff survey is currently underway, with results released in October.

Figure 2 FSS responses 2020 staff survey

6.4 Clinical incidents

One clinical incident was recorded in the calendar year 2021 to date. This was raised by Forensic Pathology, as two patient samples were cross contaminated and then partially disposed of without proper authorisation. Investigation showed that the root cause was due to training and this is currently being addressed.

7. Review of internal audits

Internal audits are generally performed as per the internal audit schedule, except in Public Health Virology where only one has been scheduled due to high workloads. Figure 3 shows a high number of open/scheduled audits in Public and Environmental Health (Public Health Microbiology and Inorganic Chemistry). This is may be as a result of increased workload or lack of internal auditors. Internal auditor training has been moved online (iLearn) to assist with training of auditors. Some areas, such as Organic Chemistry and Mortuary, have rescheduled audits due to time constraints, work commitments or infrequent sample submissions or sample types.

Overall, OQIs are being raised from internal audits and actioned appropriately, and outcomes were generally minor in nature, with no major risks identified. It is noted that Scientific Support is not

generating OQIs from their audits. This is an indication that audits may not be being performed effectively, or the subject has not been selected properly to focus on areas of improvement and risk.

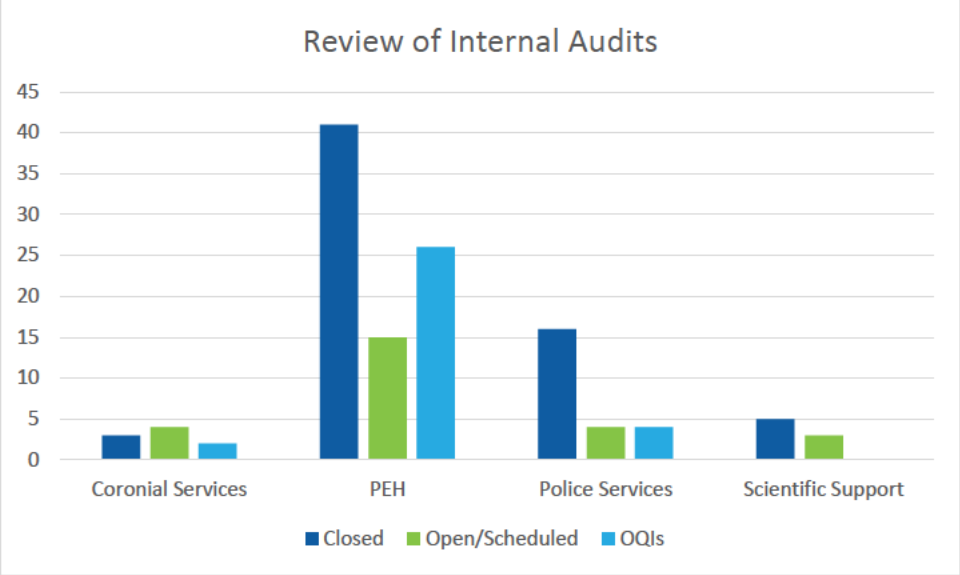


Figure 3 Internal audits 2021

The following outcomes were identified:

- Overall compliance with standard
- Some improvements to SOPs and training modules as a result of audit findings
- Several incomplete / errors in training records were found
- Simple process/procedure changes or communication required to address identified issues
- Audits have proven an effective tool for monitoring progress and actions
- Additional audits beyond ISO 17025 compliance have been utilised to investigate issues
- Minor actions not requiring an OQI could have better follow up from the auditor
- Risks identified during auditing in Organic Chemistry relate to general record keeping, traceability and acceptance of results (e.g. appropriate use of control charts, recording of non-conformances, peer review and validation review). Actions to address these issues are being worked on and new training module written around control charts and acceptance. Changes to validation review are being implemented
- Overhaul of change management documentation in Forensic DNA Analysis
- Many people were found to have inappropriate access to Forensic DNA Analysis buildings
- Instrument Data management in Inorganics addressed with improved hardware, processes and training
- Reporting competency evidence in Inorganics addressed as training modules revised, in some cases splitting TMs into analysis and reporting/peer-review competency.

8. Review of preventive and corrective actions

130 OQI have been raised in the calendar year to date. The majority have been actioned by PEH. The majority of OQIs have been closed, with only 28% still open. Figure 4 shows the breakdown of OQI's for each stream.

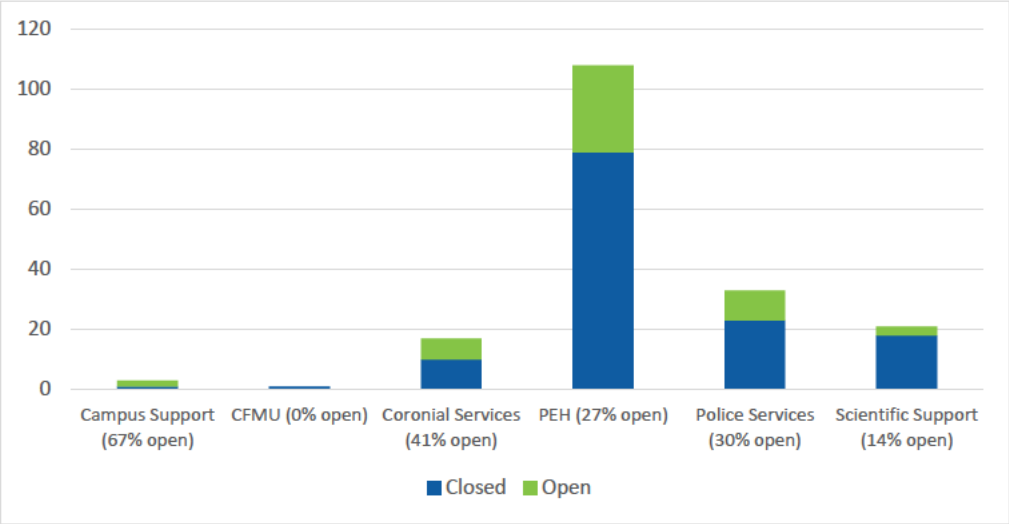


Figure 4 Corrective and preventive actions per service stream

Average time to close an OQI was 61 days. Overall, the percentage of OQIs open >30 days was 56%, meaning we are meeting our goal of closing OQIs within 30 days just under half the time.

Any identified trends or issues are usually captured in further internal audits or OQI; however, the majority were isolated incidents that have not recurred and hence actions are considered appropriate and effective with no follow up required.

Most OQIs in Public Health Virology relate to proficiency testing, whilst Inorganic Chemistry noted that many instrument computers were operating as stand-alone (non-networked) and had unsatisfactory data back-up arrangements in place. This has been rectified with the implementation of NAS, additional hard-drives or improved back up arrangements. Other risks around effective protection of raw data has also been implemented.

It was noted that the status for OQIs not investigated and actioned by Organic Chemistry is not acceptable. The line manager is responsible for determining delays, but further attention to this is required. Actions that are performed immediately are usually effective, and those that required more extensive changes are followed up for effectiveness using internal audits.

Radiation and Nuclear Science have implemented additional protection of spreadsheets and were required to reissue reports after incorrect calculations were made. Backup systems have been installed after a failure of the Alpha computer.

Forensic Toxicology noted that a number of OQIs involved factors outside the control of the lab or were due to human error. Follow up audits are planned to gauge effectiveness of action taken.

Trend analysis in Forensic DNA Analysis changed from grouping by method, errors in common procedures and similar technical process errors, to grouping by root cause analysis. This change in approach is being monitored and will be reviewed at the next management meeting.

Forensic Chemistry has suggested follow up for the transfer process of submissions between the laboratory and Forensic Property Point. It is noted that the new process for post-mortem samples for possible analysis has been implemented and is effective.

A recent focus for NATA has been the determination of root cause. We are now required to identify the root cause of a non-conformance in our response back to NATA. The quality office has seen an improvement in the documentation of root cause over the year, but this continues to be an area for improvement.

9. Evaluation of suppliers

Across FSS, there have been issues with suppliers due to COVID-19 related delays and increases in prices. Risks around supply have been adequately managed in most cases by keeping sufficient supplies in reserve, but some areas have had to resort to sourcing alternatives, sometimes resulting in an inferior product.

It was also noted that there were some delays with servicing and repairs for equipment due to domestic and international border restrictions and lockdowns. Some services had to be subcontracted to other companies.

Service from CISSU continues to be an issue for Public and Environmental Health, with a number of jobs dating back over 12 months.

The Trace Evidence group had a delay in delivery of explosive cabinets due to construction not commencing when the order was made. These have now been delivered.

Public and Environmental Health are currently renegotiating the balance calibration contract with Mettler Toledo, as the five-year contract end in November 2021.

Forensic DNA Analysis had changes to SOA QH136 affecting the purchase of latex gloves, as well as the requirement to change “type of lab gown” as the previous Halyard product did not come with a certificate of fluid resistance. They were removed from the SOA and were unable to be obtained through normal distribution. The replacement gowns are a significant cost increase.

10. Internal and external changes

Business units were asked to reflect and report on internal and external changes since the beginning of 2021, including but not limited to changes in volume/type of work undertaken, personnel changes, premises changes, as well as review of requests, suitability of procedures and sample requirements (for Medical testing labs).

The following changes were noted for these areas.

FSS

- Resignation of Executive Director, John Doherty on 3 September. Acting EDFSS, Lara Keller, appointed for three months.
- Department of Health business case for significant change phase one implementation activities were completed 1 October 2021. Phase one resulted in the dissolution of Health Support Queensland, and the Executive Director, FSS now reports to the General Manager, Pathology Queensland and FSS. FSS and PQ are now part of Prevention Division. Phase two – functional integration and consolidation – is underway. It is anticipated that the business case for phase 2 will be released for consultation on 1 November, with a final decision expected to be announced on 1 December.
- Uncertainty about transition to AUSLAB Evolution, and stability of current system
- Staff attending HHS and QPS facilities are required to have mandatory COVID-19 vaccinations
- Merge of previously split teams because of COVID-19 precautions.
- Testing underway for the new version of Forensic Register

Coronial Services

- Increase in workload in Mortuary due to COVID i.e. collections of swabs on deceased
- Turnover of staff in Forensic Pathology resulting in delays due to training
- New staff amenities to be built in 2022 for Mortuary, as well as new external cold room for storage of bins.
- Workload in Forensic Toxicology is stable. Two unfilled FTEs due to staff working temp P/T may affect service delivery in the future.

Public and Environmental Health

- Cross training of staff to assist in running instrumentation in Special Services is occurring
- Steve O'Brien retired after 40+ years of service at FSS (Organic Chemistry)
- Business case to upgrade a vacant HP4 to HP5 Supervisor in Special Services, Organic Chemistry, to improve overall management structure. The area also requires a dedicated quality and training officer due to the increasing complexity of requirements for accreditation
- There is a need for refurbishments in Organic Chemistry as the way work is conducted continues to change with less preparatory work required and increasing reliance on instrumentation
- YTD number of tests has increased by 6.3% for Organic Chemistry, though revenue has decreased by 4.3%.
- Inorganic Chemistry has also had some staff turnover. Retirement of Chief Chemist, as well along-standing senior staff member in Trace Metals. Another permanent position is also vacant. Staff roles and re-evaluations occurred at HP5, HP4 and HP3 levels to align with improvements to organisational structure
- Nutrient sample numbers are up by almost 50% on previous years. Other areas in Inorganic Chemistry are stable.

- Small reduction in testing volumes in areas, particularly in Food Microbiology and Food Chemistry, due to reduction in sampling by environmental health officers seconded to COVID-19 activities. Staff have been temporarily re-allocated to other areas.
- Movement of positions and business cases for change in Public Health Microbiology focussing on streamlining of services.
- Radiochemistry is a person down due to internal staff movement. There has been some reduction in the overall volume of work which has somewhat diminished the impact of this, but recruitment is currently underway.
- Volume of work in Public Health Virology is highly variable and unpredictable. Six staff have either permanently left, on long leave, or secondment, with difficulty recruiting to vacant positions.
- Public Health Virology will soon be testing wastewater for SARS-CoV-2. Old BRF area is being refurbished for this purpose.

Police Services

- QPS are undergoing some internal reviews and there are discussions on the potential decentralisation of parts of ILIT which could see an impact on the on-call role of the Clan Lab Group.
- Continued follow-up with the QPS regarding the outstanding recommendations from the Qld Audit Office audit report. Little progress has been made to date, as the QPS have advised that the COVID-19 pandemic response priorities have impacted on this.
- The QPS are moving towards an electronic QP127 form, which will assist current processes
- More illicit drugs finalised in 2021 than received, meaning the number of outstanding cases is declining. Proactive approach for prioritisation by SSLU for batch allocations to analysts, and proactive approach for combination of exhibits in a submission for purity testing
- Trace Evidence group has had a consistent volume of work over last five years. There has been an increase in sexual assault personal lubricant case types noted over the past three years.
- Core work for Forensic DNA Analysis in terms of volume and type are unchanged, however the laboratory currently has a high project/verification workload. Some of this work (e.g. MPS, Y-Filer) may result in the introduction of new services in the future.
- Forensic DNA Analysis changes include validation of a new amplification kit – Verifiler, new work into MPS technology, verification of Y-Filer kits
- Clan lab group has seen an increase in the number of larger, more complex lab types

Scientific Support Services

- Two school-based trainees commenced with Scientific Support Services for one year, for completion of a Cert III in Business Administration
- Increase in samples processed by Public Health Property Point due to COVID-19

11. Risks

Organisational risks are managed using the Queensland Health endorsed RiskMan application, and these are reviewed at the monthly FSS Leadership team.

Eight risks were closed in 2020 as the treatments were deemed to be effective and the risk adequately managed. These were

- Scarcity of Forensic Pathologist recruitment candidates (#202)
- External cladding fire hazard on HFSP buildings (#319)
- Genomics computing, data analysis and storage (#390)
- Unprotected PCs attached to the network (#674)
- FSS Histology laboratory ventilation system (#742)
- Contractor vaccinations (#779)
- Chemical storage in FSS (#943)
- Deterioration of Virology PC3 (#970)

Four new risks were identified in 2021, one of which was also closed in the same period.

Current organisational risks are outlined in table 4 and are being adequately managed.

Table 4 FSS Risks

ID	Risk / issue title	Risk / issue description	Current Risk	Projected risk
80	Impact of legacy LIS systems on service delivery.	FSS has a number of non-supported applications that, if compromised, will affect the ability of FSS to deliver services efficiently.	High	Medium
302	External AC ductwork on block 2	External AC ductwork on block 2 has been identified to be suspended on structural members that are significantly affected by rust. Failure of structure could affect AC to entire block 2 and significantly disrupt business services.	High	Medium
1054	Governance and coordination of forensic services	delays to investigations and prosecutions, waste of testing effort, court delays and reputational damage	High	Medium
715	Mortuary facility upgrade	The mortuary facilities are not fit for purpose and require upgrading	High	Low
449	QPS approval for process for migrating Forensic DNA Analysis data to cloud-based storage solutions	Process for cloud-based storage solutions for Forensic DNA Analysis requires QPS consent.	Medium	Medium
1007	Aging Sun Server	There is a risk this server may not be available or functional in the near future and an alternative is required.	Medium	Low
1201	Stalled progress on QAO recommendations	There is a risk that FSS will receive negative media attention as a result of its inability to progress three outstanding QAO recommendations due to a lack of QPS engagement to undertake particular activities, despite every effort to collaborate with QPS to progress them.	Medium	Low

800	Swipe card access	FSS staff may able to enter unauthorised areas due to the current programming of the swipe card system which is based on providing groups access to specified areas, not select individuals.	Low	Low

Additional risks that were identified as a result of this management review are

- Due to workload in Forensic Imaging and Sampling, prioritisation of testing has increased in significance
- Work volume and referral of complex coronial cases to FSS causes cold room capacity to be stretched from time to time. Age of building and lack of space impedes efficient workflow.
- Forensic Chemistry worked with bdna earlier this year to refine some enhancements to the Forensic Register that would assist throughput. bdna have scheduled a 9 November 2021 date to finalise the review of the new version of the Forensic Register.
- FSS does not have an operational CBR triage facility to deal with high risk chemical, biological and radiological samples.
- Ageing or inadequate systems including AUSLAB, iLearn, QIS and electronic data storage
- Ageing staff population in Organic Chemistry
- Increasing reliance on instrumentation in Organic Chemistry will be impacted by capacity, knowledge, and lab design.
- Long term temporary staff and 'acting' cascade in Inorganic Chemistry
- Expansion of the rapid coronal testing program for Forensic Toxicology
- Long turnaround times for modifications to AUSLAB due to insufficient CISSU resources and problems with new version
- Some instrument computers in Forensic DNA Analysis still using Windows 7, windows XP operating system and have been ringfenced. These PCs are unable to be updated as the software for the instrument is not yet compatible with Windows 10. This includes PCs for thermal cyclers (Win10 compatible replacements on HTER currently being verified) and STORstars (HTER replacement currently being investigated within 2020-2022 round).
- Alan Westacott's retirement has left many software programs in Public Health Virology vulnerable if a problem develops.
- COVID-19 pandemic has introduced safety risks that are being managed on a Qld Health/HSQ/FSS/departmental basis.

12. Effectiveness of any implemented improvements

Current improvement projects are on track for completion. Benefits include reduced paperwork, increased efficiencies, reduction in unnecessary analysis, better control of offline spreadsheets, increased use of peer review forms, and improved service.

Examples include

- Electronic learning management system, replacing current paper-based modules
- Cold case admin review (SSLU)
- Expansion of genomics testing scope
- Aligning Leptospirosis and Reference teams due to similarities in roles
- Improvements to PC3 documentation and culture collection storage for Public Health Microbiology
- The use of communication tools such as Microsoft Teams, emails instead of meetings, and Smartsheet.com as a by-product of COVID-19, which is being considered between Forensic Pathology and other government partners
- Raman attachment for FTIR
- Re-assessment of limit of reporting for quantitative methods in Forensic Chemistry
- THC and THCA QDA validation completed and method implemented, which has expanded the lab's capabilities and provided additional data for reporting drug purity
- Robotic platform in Forensic Chemistry for preparation of MA type samples for screening on GCMS, as well as cocaine samples for drug purity testing by LC
- Expanded number of analytes in Forensic Chemistry on LC-MS/MS screens including low dose compounds screen and plant screen to improve capability
- Continuous improvement of qualitative and quantitative methods in Forensic Chemistry investigating new column technologies and modification of LC and LC-MS/MS conditions and mobile phases to improve selectivity of methods
- Purchase of FTIR microscope and FTIR Spectrometer in Forensic Chemistry
- Validation of 20 anions (explosives method) for Ion Chromatography (IC) run
- Collaboration between Forensic Chemistry and Special Services to transfer explosives and drink spiking methodology to LC-Orbitrap-MS
- Completion of synthetic twine project in Forensic Chemistry, resulting in removal of time consuming and hazardous techniques, and establishment of discriminating power of MSP and IRMS
- Nutrients report strategy is in place for Forensic Toxicology work
- Quasi-network storage and backup service is now in place in Nutrients (Inorganic Chemistry)
- Succession planning implemented upon notification of imminent retirement of long-standing Trace Metals group leader. Training program of two staff from other areas conducted by experienced staff
- Inorganic Chemistry restructure. Many role re-evaluations and updated position descriptions completed. Provides clearer responsibilities and lines of reporting/delegation
- Early warning program for NPS drugs (awaiting ethics approval)
- Process improvement in terms of minor adjustments to acid drug screens and QTOF confirmatory method in Forensic Toxicology

- Changes in Forensic DNA Analysis to allow software support and instrument servicing/support remains up to date (i.e. verification STRmix 2.7 for 3500xL, verification of DCS V4.0 3500xL, evaluation of DBLR, implementation of 3500xL PP21 casework, verification of STRmix v2.8, 3500xL implemented for all PP21 casework processing)
- Purchase of required equipment in Public Health Virology
- New Calibration reference source for Gamma spectrometry in RNSU

Future needs and directions include

- Purpose built Public Health Property Point
- Improvement of QPS access to Forensic Property Point
- Re-evaluation of mortuary staff classification/skill level
- New instrumentation for Organic Chemistry, developing and maintaining skilled staff
- Re-design of Organic Chemistry laboratory to support changing practices and instrumentation
- Improved seating arrangements in Public Health Microbiology for compliance with Australian Microbiology Standards
- Greater IT support for bioinformatics applications in Public and Environmental Health
- Continue to work with the QPS to close out the recommendations from the QAO audit report
- Introduce new technologies in Forensic Chemistry to increase laboratory's capability (e.g. Benchtop NMR and FTIR)
- Establish dedicated case opening benches in Forensic Chemistry to improve workflows
- Collaborate with PEH to validate methodologies in Trace Evidence
- Multiple research projects have been approved for the coming year in Inorganic Chemistry. HP5 Supervising Scientist role includes oversight of research projects and should improve involvement, project monitoring, milestone reporting and achievement of outcomes.
- Recruitment to ICP-MS area in Inorganic Chemistry to ensure current capabilities are retained and sufficient competent resources are in place to adopt industry innovations
- Expansion of rapid coronial drug testing program. Expected that oral fluid sample numbers will return to pre-COVID levels in 2022.
- Verification/validation of additional technologies in Forensic DNA Analysis, including MPS, Y-Filer and NIFA/Bonaparte
- Transition of wastewater testing for SARS-CoV-2 testing
- Building upgrades in Public Health Microbiology
- Data transfer App in RNSU awaiting final deployment by IT. This application has been developed with CISSU from funding from the HSQ 'Innovation challenge grant'. Use of the App is hoped to reduce data processing time and reduce transcription errors which will result in improved quality of reported results for clients and free up staff time for more important work

- Move documentation to SharePoint for radiochemistry section.
- Combined sample register for Physics and Radiochemistry work that will improve sample receipt and client reporting processes, particularly where analyses are required by both groups.
- Completion of Master Planning
- Replacement of the irradiator system at RNSU

13. Performance objectives

In this section, performance against quality indicators and any other KPIs are discussed.

Quality indicators are reported in the monthly quality status report (Table 5). Overdue calibrations continue to report red, and this is primarily due to Public Health Virology, who are training more staff. Percentage CSPs completed is at 43% with a goal of 80%. Detailed reports were provided to the Leadership Team, and training was updated and provided online, which resulted in some improvement, but the indicator continues to fall below target.

It is recommended that a concerted effort is made to improve these values.

Table 5 Quality indicators

	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Target
Audits Overdue >30 days§	32 (7%)	26 (5%)	39 (2%)	32 (6%)	25 (5%)	29 (5%)	29 (5%)	29 (5%)	28 (5%)	<35
Overdue calibrations >30 days***	92 (12%)	163 (23%)	213 (31%)	157 (23%)	165 (24%)	195 (28%)	219 (31%)	197 (28%)	137 (19%)	<100
Critical documents overdue >30 days*	1	0	1	4	4	5	3	4	4	<2
Critical OQI's open >30 days**	8	0	0	0	0	0	0	1	1	0
External agency audit major non-conformances open >30 days	0	0	0	0	0	0	0	0	0	0
%CSP's open	39%	42%	49%	52%	47%	44%	47%	49%	43%	>80%

KPIs are established for most business-critical activities. Targets are being mostly met, with additional details below

- KPIs reported to Department of Health monthly by Forensic Chemistry are number of Illicit Drug Items received, number of Illicit Drug Items completed (which includes subsample numbers) and number of items completed per FTE.

- Public Health Microbiology KPIs are being met 100% of the time. New KPI for genomic sequencing and routine genomic surveillance added this year.
- Public Health Virology KPIS are being met 100% of the time and are based on turnaround times for critical results.
- Dialysis water targets are met 100% of the time. KPIs for outstanding tests are exceeded due to fluctuating sample submissions which are generally busiest in Feb – May). Decreasing trend is evident over the last five years. Exceedances are fewer and less pronounced and have remained steady for the last two years.
- Current KPIs exist for Forensic DNA Analysis and are being reported, but are being re-assessed and building new, more detailed assessment measures.
- Enhancement requests for KPI data from FR pending for Forensic DNA Analysis, specifically relating to turnaround time. KPIs reported to Department of Health on a monthly basis are number of Just In Case Sexual Assault Kits received and number of Queensland Police Service Sexual Assault Kits received.
- Enhancement requests for KPI data from the FR is also pending for Forensic Chemistry. Review of the new version of the FR may provide some metrics currently available within this version and each work group will begin to devise KPIs after the implementation of the new version.
- KPIs are being met in all areas in Scientific Support Services, and enhancements to the Forensic Register are required to measure meaningful performance objectives.
- Some adjustments to KPIs are being considered in Forensic Imaging and Sampling.
- Increase in complex case numbers and complexity of cases in the Mortuary
- Forensic Toxicology are meeting targets for turnaround time, and reported and unreported case numbers

14. Adequacy of resources

Some areas have unfilled FTEs due to staff working on a part time basis. Some labs are unable to fill these positions which may affect service delivery in the future.

Appendix 1 Quality management review preparation template

Notes: Where required, please use data from 2021 calendar year to date.

Organisational Unit:

Completed by:

Item	Topic	Finding/Results of review
1	Assessment by external bodies • Have all non-conformances from the last NATA/ISO9001 assessment(s) been actioned? • Have the actions taken been effective and sustainable? • Have the results of inspections at other laboratories been reviewed to ensure no adverse implications?	
2	Outcome of external proficiency trials and interlaboratory comparisons • Status of Proficiency Testing (number started/completed/pending etc) • Results of Proficiency Testing (results reported on time, outliers followed up) • Are there any areas of concern?	
3	Client feedback (Complaints, compliments) • Actioned in a satisfactory time frame (acknowledged within 5 days and closed within 30 days)? • Was the action taken appropriate? • Have the actions taken been effective? • Are there any trends/concerns that require follow up?	
4	Internal audits • Are internal audits performed as per the internal audit schedule (any overdue)? • Are OQIs being raised and actioned appropriately from these audits?	

	• Has the internal audits identified any significant risks to the business?	
5	Preventive and corrective actions • Status of OQIs (number opened/closed/pending etc) • Was the action taken appropriate? • Have the actions taken been effective? • Are there any trends/concerns that require follow up?	
6	Evaluation of suppliers • Status of supplier performance issue (number of issues observed/actioned/pending etc) • Any risks?	
7	Internal and external changes (Volume/type of work undertaken, Personnel, Premises) • Have there been any changes in the volume/type of work undertaken • Are there any changes in personnel or premises? • Are there any upcoming changes that could impact services? • For Medical testing labs – review requests, suitability of procedures and sample requirements - are there any changes required?	
8	Risks • Are current risks being adequately managed? • Are there any new risks?	
9	Effectiveness of any implemented improvements • What is the status of any improvements/projects? • What are the outcomes of any implemented improvements/projects? • Future needs and directions for the work-unit?	
10	Performance objectives • Are KPIs established for business-critical activities? • Are targets being met? • Are there any trends?	

Appendix 2 Quality commitment

At Forensic and Scientific Services (FSS) the pursuit of excellence is an organisation-wide objective. All our employees demonstrate a real commitment to continuously improve the quality of our services and products. We engage with our customers to understand and respond to their needs.

FSS will reliably provide quality products and services to its customers. To achieve this aim, we will

- **Respect and comply with our quality commitments** by producing and supplying products and services that conform to the relevant specifications and meet contractual and regulatory requirements.
- **Focus on our customers** by ensuring that our products and services deliver the accuracy and timeliness expected by our customers.
- **Achieve operational excellence** through the development, implementation and continual improvement of systems in all aspects of our organisation.
- **Seek relevant certification and accreditation** of our management systems where appropriate to the requirements of all applicable standards.
- **Reduce variation and waste** by ensuring that the right measures guide process management decisions
- **Maintain productive management systems**, to the international standards detailed in the quality manual, to ensure they are relevant and contribute to the efficient and reliable operation of the business.
- **Integrate quality objectives into our business** to ensure that the needs and requirements of users are met.
- **Hold employees accountable** for maintaining the quality of work in their area and carrying out their duties in accordance with this commitment.
- **Source economical and reliable products** from suppliers with the objective of getting the best combination of value and quality for our customers.
- **Establish a robust system** of risk oversight, management and internal controls.
- **Deliver expert reference and analytical services.**
- **Provide efficient cost-effective services** to clients.

The objectives outlined in our business plans will be used to measure our success in effectively implementing this commitment

Forensic and Scientific Services

Quality status report

1 – 31 May 2022

External Assessments	
Upcoming	• Microbiology addition to scope – assessors proposed • Forensic reassessment – July 25-28
Completed	• Chemical testing – final response accepted by NATA • NATA Forensic pathology – awaiting final report

Risks
- Nil
Issues
- As per last report – almost every quality indicator is reporting red. Action is required for overdue calibrations, critical documents, critical OQIs and CSPs

Quality Indicators

(Percentages are based on number scheduled in the time period. Overdue document % is based on number of active documents)

	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec/Jan 2021	Feb 2022	Mar 2022	Apr 2022	May 2022	Target
Audits Overdue >30 days§	29 (5%)	29 (5%)	29 (5%)	28 (5%)	26 (5%)	26 (5%)	25 (4%)	20 (3%)	33 (5%)	20 (9%)	28 (12%)	<35
Overdue calibrations >30 days***	195 (28%)	219 (31%)	197 (28%)	137 (19%)	138 (20%)	129 (19%)	138 (18%)	227 (31%)	191 (25%)	128**** (20%)	203**** (32%)	<100
Critical documents overdue >30 days*	5	3	4	4	5	3	3	3	2	1	2	<2
Critical OQI's open >30 days**	0	0	1	1	1	1	1	2	4	4	6	0
External agency audit major non-conformances open >30 days	0	0	0	0	0	0	1	4	1	0	0	0
%CSP's open	44%	47%	49%	43%	45%	44%	40%	46%	50%	51%	54%	>80%

§ These figures exclude OH&S Inspections and risk assessments
* Critical documents are business continuity, emergency preparedness etc. Includes documents in draft
** Critical OQIs are external complaints and clinical incidents. See below for other details.
*** Includes equipment in Forensic Register
**** These stat do not include FR overdue calibrations

Queensland Government

Document Review

- **Critical documents overdue >30 days**

Doc Number	Status	Title	Area
26083	Overdue 39 days	Emergency Planning Committee TOR	Campus Support
28966	Overdue 72 days	Business continuity plan	Records Management

OQI Review

- **Critical OQI's open >30 days**

OQI Number	To	Content	Date added
55902	Mortuary	Failure to release deceased property	19/01/2022
56002	Mortuary	Incorrect sendaway registration process	15/02/2022
56039	Mortuary	Empty container sent for testing	24/02/2022
56211	PEH Virology	Mosquito testing	18/04/2022
56330	CFMU	Patient incorrectly identified and given another patients medication	14/02/2022
56332	CFMU	Double dosing (7 hours apart) of large dose antipsychotic medicine	16/05/2022

- **Compliments**

OQI Number	From	To	Content
56358	Cathy Hurst PHPP	Andrew Hardman SSDU	Appreciation message for assistance received

This course has been designed to assist staff to effectively investigate and action Opportunities for Quality Improvement (OQIs)

At the completion of this course, you should have the skills and understanding to investigate and action OQIs to prevent reoccurrence. You will be able to ensure you have identified the root cause, and that your investigation and actions are thorough and credible.

Investigating an OQI (root cause analysis)

Actioning an OQI

Follow up and approval

Lesson 1 of 3

Investigating an OQI (root cause analysis)

Investigation

The goal of the investigation is to understand what happened and why. We need to understand why it made sense to do what was done at the time of the incident. Too often OQI investigations are very shallow, and they are neither thorough nor credible.

Why do root cause analysis?

When investigating an OQI, NATA has asked us to determine the root cause.

Every error has a root cause, and unless the real cause is dealt with, there is every chance the error will reoccur.

Research shows over 80% of errors are attributed to poor systems and process design, not unintended human error. Roost cause analysis (RCA) is a collective term that describes a wide range of tools and techniques used to help identify what, how, and why an event occurred, so the cause(s) of the problem can be identified, and process changes can be implemented to prevent future occurrences.

"When investigating the cause of an OQI we need to accept that people are fallible and sometimes make mistakes. Instead of blaming the individual, we should see human error as a starting point, to help us

identify conditions in our work systems that contributed to the human error."

- He en Gregg

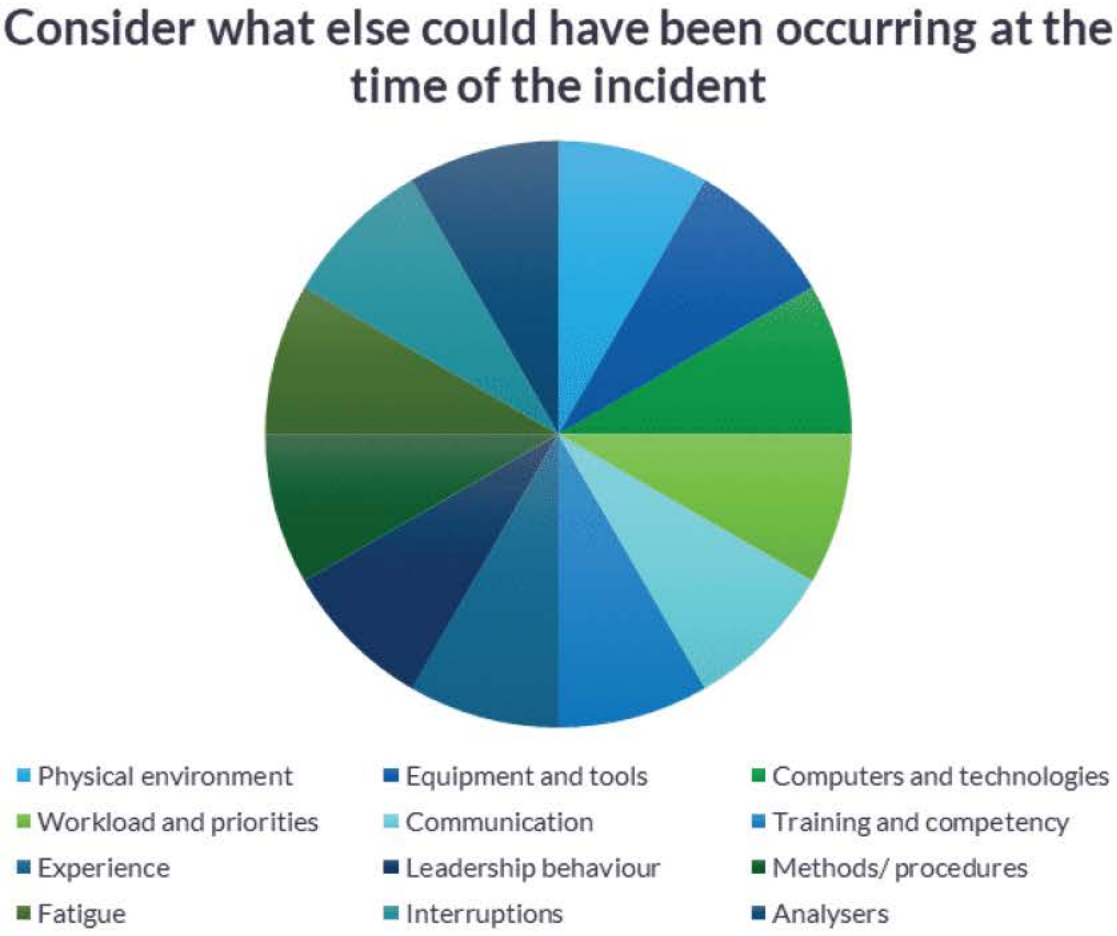
CONTINUE

The point of the investigation is to understand why people did what they did, not to judge them for what they did not do. By understanding why it made sense to the individual, and redesigning the process to prevent a reoccurrence, we set people up for success in the future.

Systems approach - what happened, why it happened, and how to prevent

The systems approach considers:

- Human error is a symptom or consequence of a deeper underlying issue or problem
- People do reasonable things. They do what makes sense to them at the time, given the situation, operational pressures and organisational norms.



Hindsight Bias

When investigating an OQI, it is important not to jump to conclusions. It is essential to stay focussed on what actually happened – not what you think happened. It is easier looking back when you have all the information at hand.

It is also tempting to ask why people didn't do something that, with hindsight, would have made much more sense. Questions or remarks such as "But why didn't they...?" or "If only they had..." allow us to prepare for similar situations, but have no role to play in explaining why people did what they did. Saying what people should have done does not explain the reasons behind what they actually did.

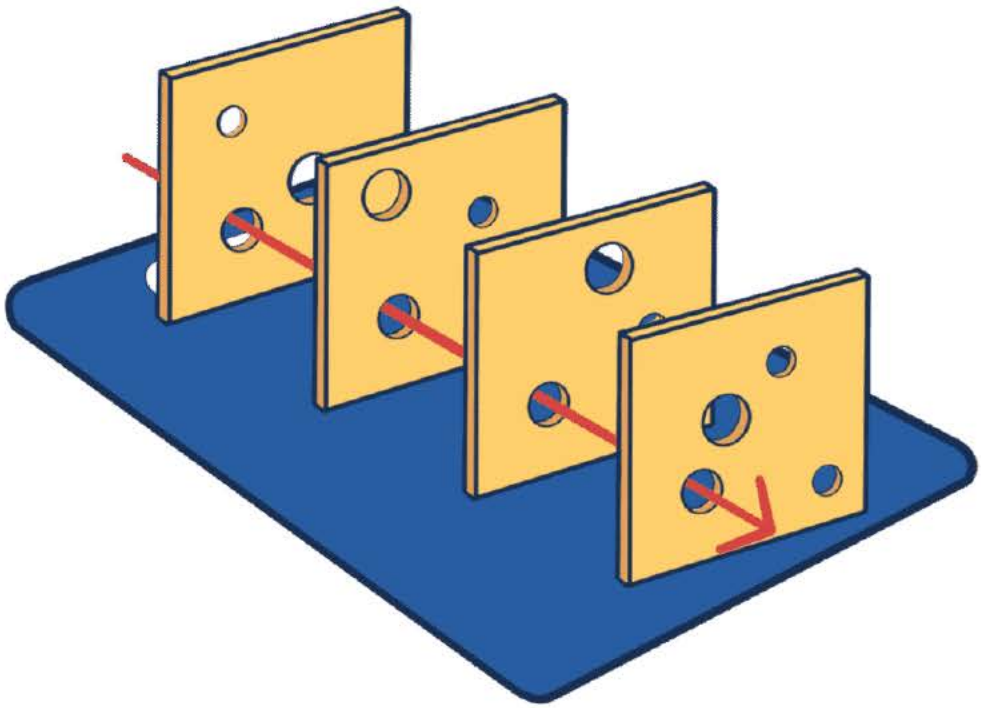
Single view point

It is critical that the investigation does not to stop at one stage once an issue has been identified e.g., poorly documented process.

There are many steps and factors that comprise a process and often it is a combination of factors that aligned to lead to an error.

By stopping the investigation early (at documentation), other issues such as reagents, training, analyser configuration etc may be missed, and could result in reoccurrence, as the root cause and all contributory factors were not initially identified and corrected.

This theory is commonly known as the swiss cheese theory – all the 'holes' (factors) have to line up for the error to occur.



CONTINUE

Define and understand the problem

Before an OQI can be investigated we need to have a clear understanding of the problem, its extent and significance

Step 1

What do we want to keep from reoccurring

Clearly and concisely describe the issue. Examples may be;

- Incorrect sample requested
- Incorrect result issued
- Results not available

Step 2

When did it happen?

- Chronological timing – when did it occur, as date and time can be important
- Relative Timing - what else was happening when this event occurred?
    a. Weather event, transitioning to new analysers/tests, influenza season
    b. After equipment maintenance
    c. After an AUSLAB/FR downtime etc.
    d. Its extent and significance

Step 3

Where did it happen?

- Specify the location
- Where else has it happened?

Step 4

What is the Extent and Significance of the problem?

- Is there a trend? Has it happened before, how often? Be specific e.g., twice this month.
- Have like issues have previously been raised in your laboratory or group?

Step 5

Assess the risk

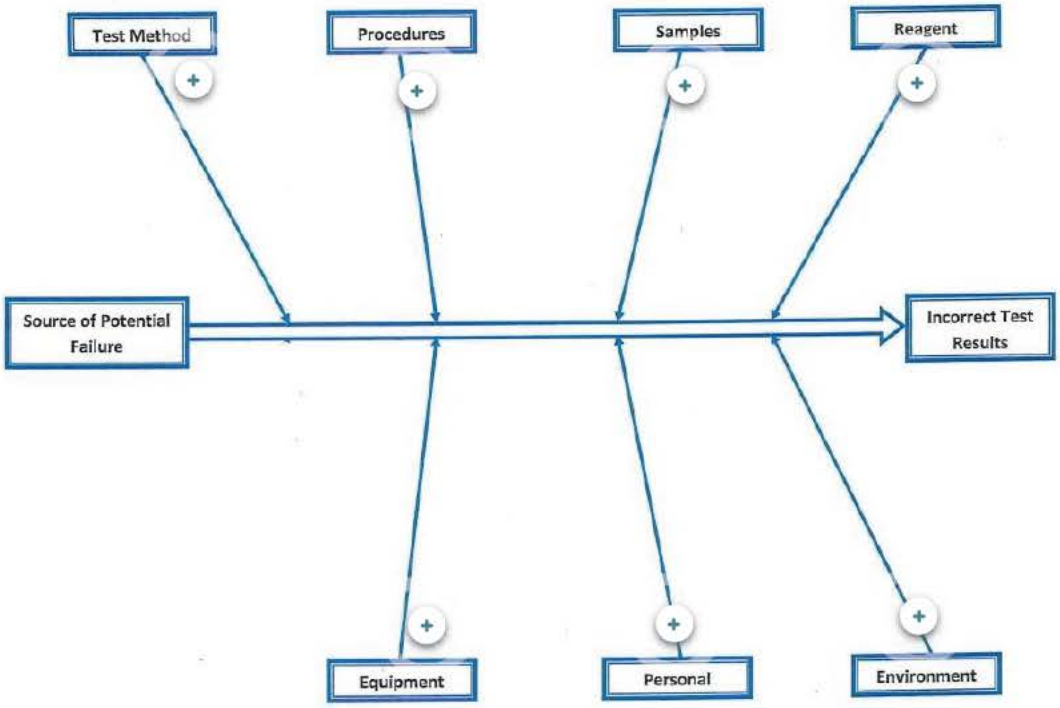
- Identify the criticality and urgency of the issue and timeliness of investigation and action
- Determine the effort or resources required.

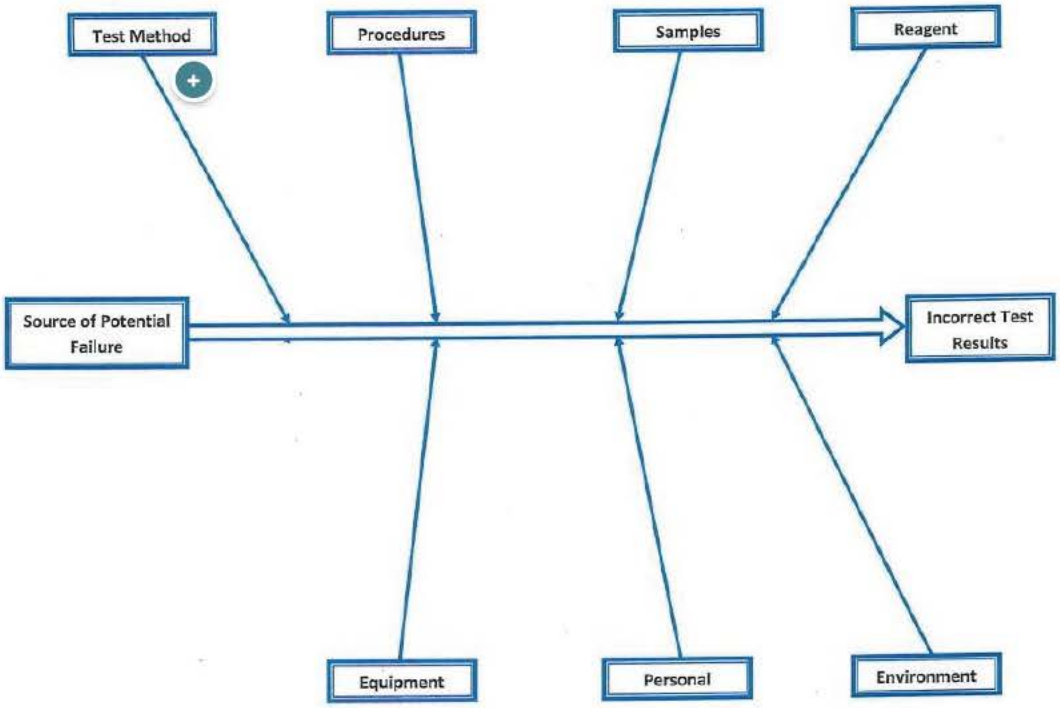
Fish bone investigation tool

When investigating a problem, it is best to adopt a systematic approach starting with a category then drilling down getting progressively more detailed until all potential factors are identified before moving to the next category.

> Good questions to ask include how, why, what, so what, what is the relevance of. Asking multiple "why" questions is also an effective way to identify factors that contributed to the problem. Ensure you don't leave obvious questions unanswered.

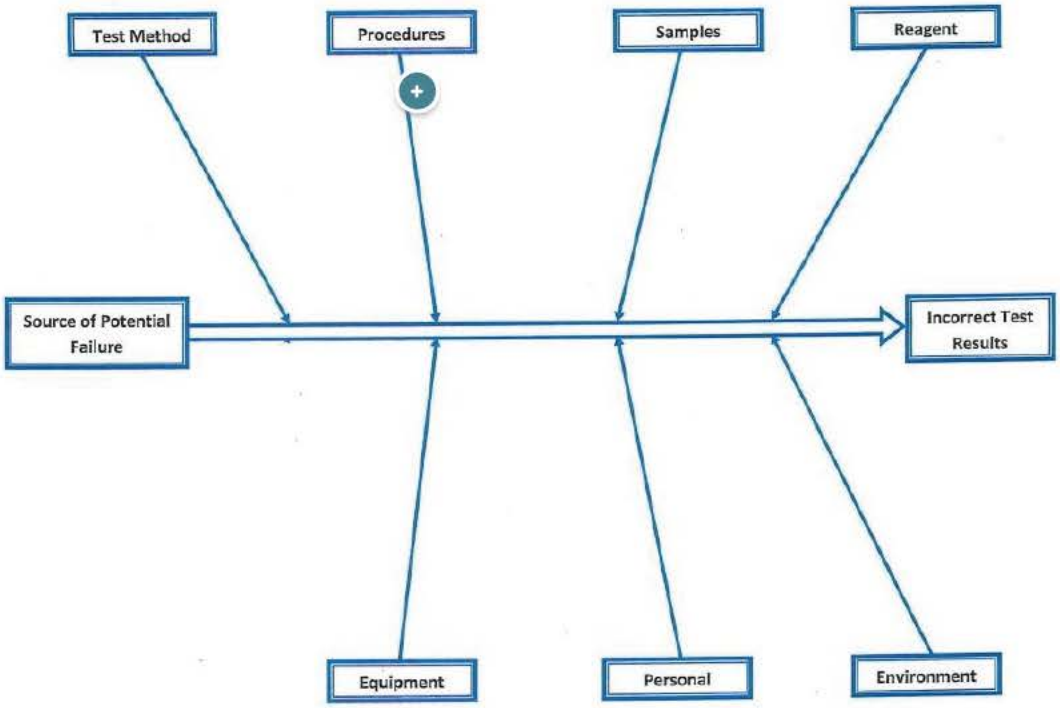
The Fish bone investigation tool is an effective way to document all potential factors that could have contributed to the error and thus need to be reviewed.





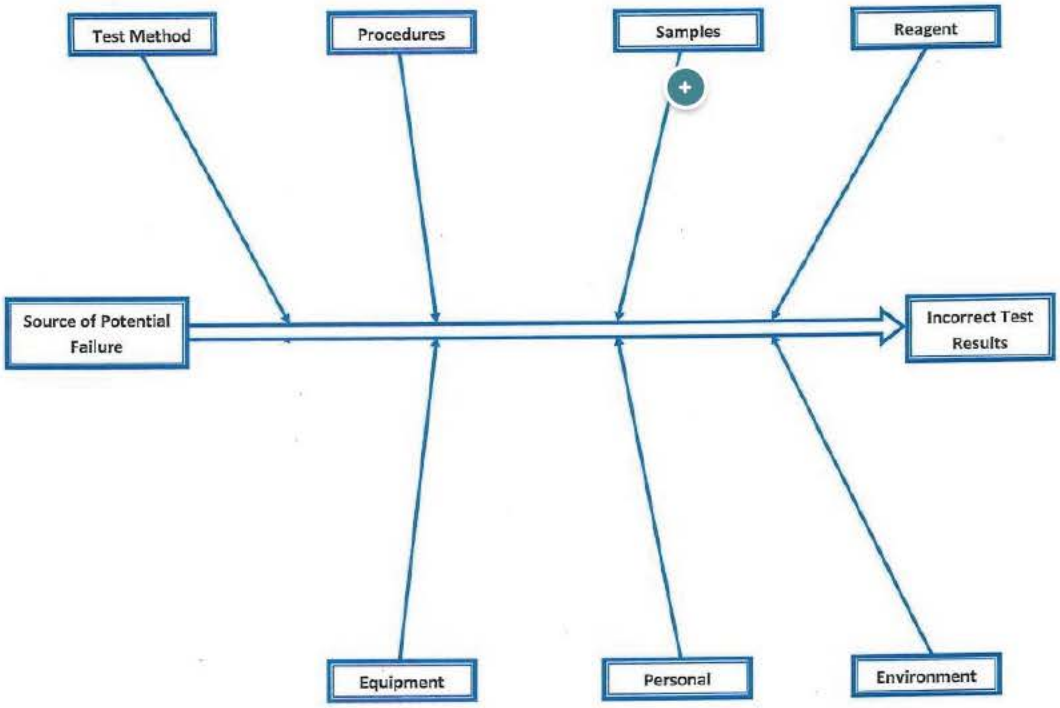
Test Method

- Validation
- Verification
- Reference range
- QC
- Peer review



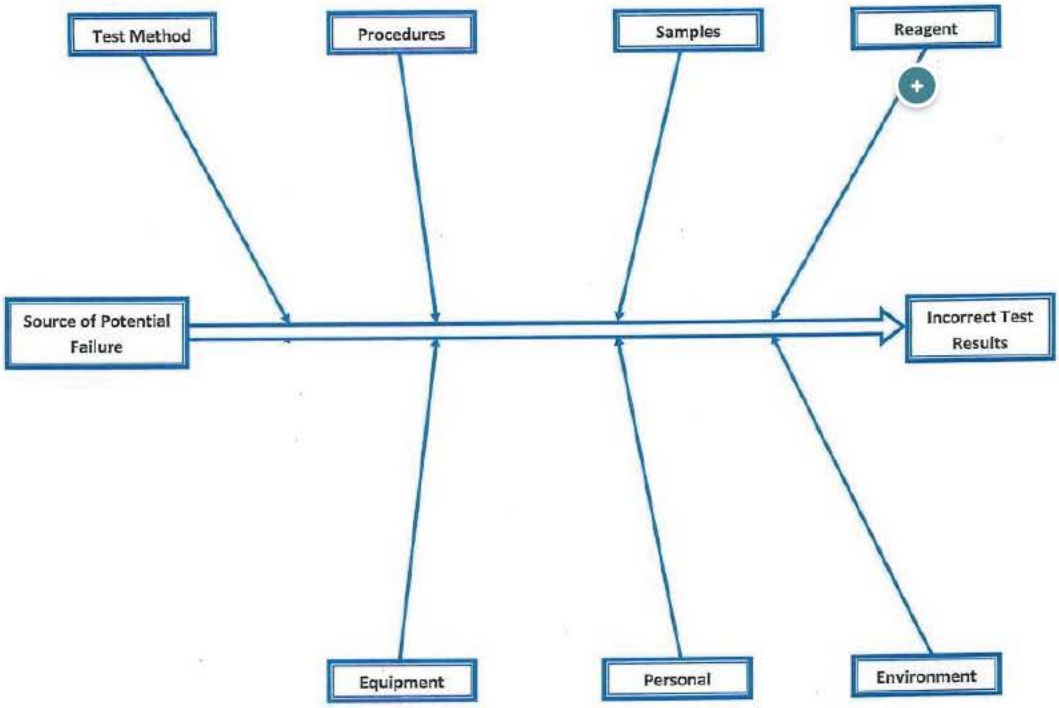
Procedures

- Compliance with procedure (one off or repeated)
- Staff awareness of procedure or recent changes to procedure
- Document control (incorrect version, not controlled, multiple versions)
- Content (adequate details, clarity)



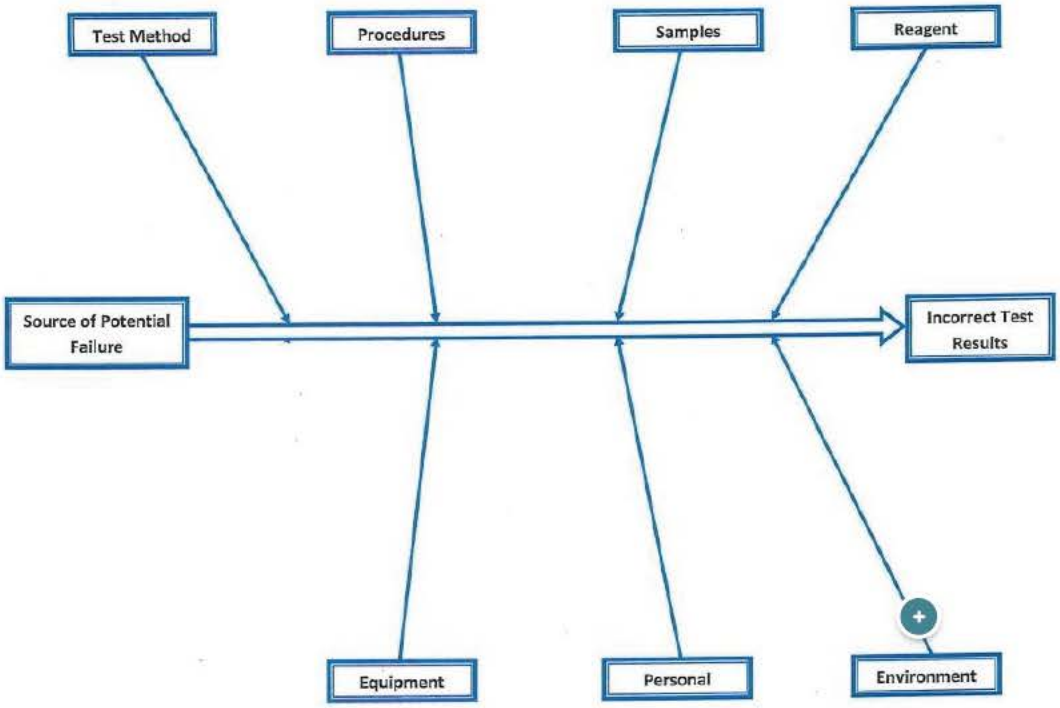
Samples

- Sample integrity
- Specimen identification
- Urgency
- Sample presentation (inadequate volume, bubbles)



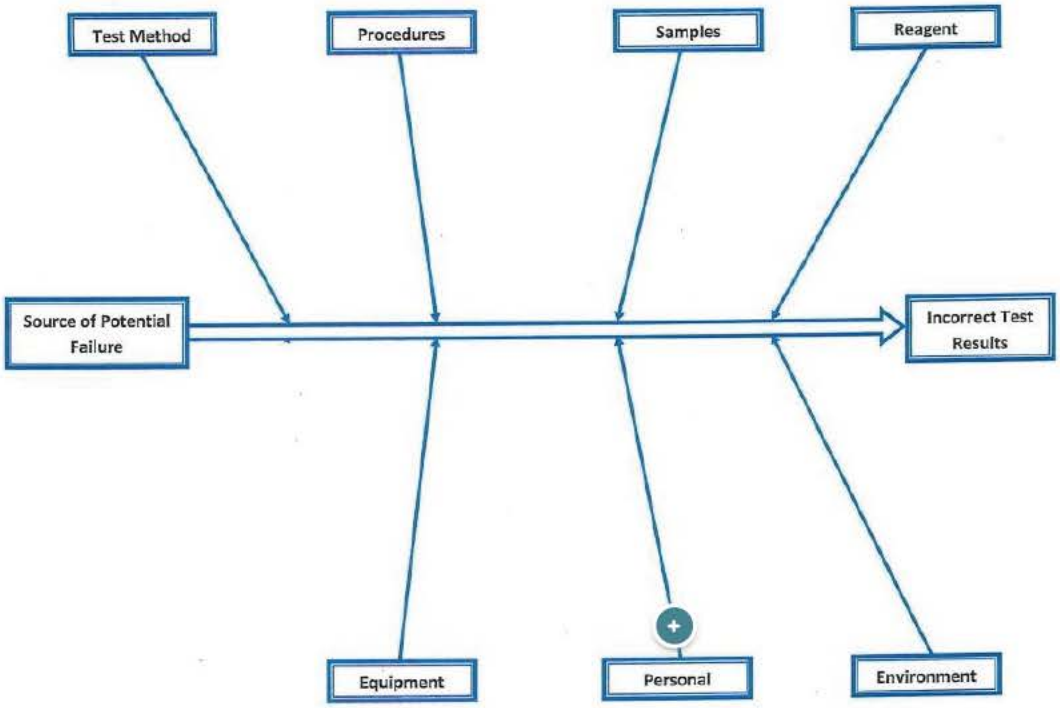
Reagent

- QC Material degradation (expired, storage, shipping, preparation)
- Calibrator/standard degradation (expired, storage, shipping, preparation)
- Reagent degradation (expired, storage, shipping, preparation)



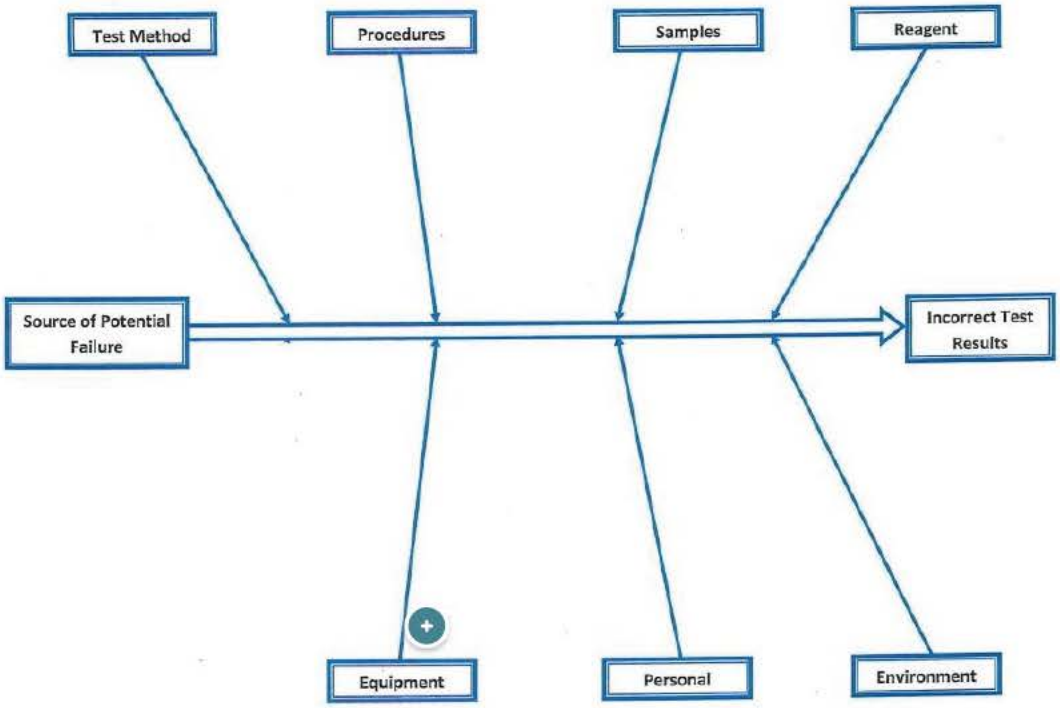
Environment

- Distractions (noise, interruptions, phone calls)
- Utilities (electrical, water quality, pressure)
- Atmosphere (humidity, dust, temperature)



Personnel

- Training/competency (timely, adequate, updates)
- Roles (unclear, inappropriate role modelling)
- Communication (changes, handovers, accuracy, clarity)
- Staffing issues (experience, culture, fatigue, workload)



Equipment

- Instrument failure (software failure, alarms, warnings, optics drift, interface failure)
- Inadequate maintenance (timing, scheduling, contamination)
- Fit for purpose (level of automation, capacity, backup)

Identification of root cause

The next step is to differentiate between contributing and root cause factors and clearly define causal relationships

> **Removing a contributing factor decreases the likelihood of the problem reoccurring, while removing a root cause prevents the issue from reoccurring.**

As previously discussed, “human error” is not a root cause rather it is the effect, or symptom of the factors that lie behind the error, e.g., short cut from procedure allows the job to be performed faster, contributing factor is rewarded by management i.e. improved turn around times

Use the three questions below to identify the root cause.

WHAT HAPPENED?	HOW DID THIS HAPPEN?	WHAT IS THE UNDERLYING SITUAT...

Clearly identify the error made.

It may be helpful to summarise the critical steps in a flow diagram, highlighting any differences between the actual and standard process, including any gaps on the standard/documented process

Watching the process being undertaken is recommended as this allows the actioner to examine other characteristics such as equipment, lighting, noise, staffing levels etc

WHAT HAPPENED?	HOW DID THIS HAPPEN?	WHAT IS THE UNDERLYING SITUAT...

Identify the issue that caused the error

- Was the training and competency of the staff performing the task complete? Adequate?
- Is the task infrequently performed?
- Was fatigue, stress or workload a factor?
- Were there distractions?

- Did the layout of the work area contribute?
- Did the physical environment contribute? (e.g. noise etc.)
- Did the equipment contribute?
- Was communication adequate? To the right people?
- Was there adequate supervision of inexperience staff?
- Is there an SOP? Is it up to date? Was the staff member aware of the SOP? Is it clearly written?
- If the SOP was not followed, why?
- Was the error introduced from outside the laboratory? (e.g. Incorrect instructions from customer, wrong value for reference sample supplied by manufacturer)

WHAT HAPPENED?	HOW DID THIS HAPPEN?	WHAT IS THE UNDERLYING SITUAT...

What underlying situation created this issue that caused the error

- Working a six-day week for 12 hours a day = fatigue
- Task only done once a year = low level of competency
- Poorly written SOP = procedure not followed
- Wrongly labelled reference sample = external error

CONTINUE

Documenting the root cause - causal statements

It is important to document the root cause in the 'investigation' section of the OQI, and this is best done using causal statements. These are succinct statements used to summarise the investigation and show a clear link between the contributing factors and the incident/outcome. Causal statements;

Clearly show the 'cause and effect' relationship

Better	The level of the scientist's fatigue increased the likelihood of the instructions being misread, which led to incorrect data entry
Okay	The scientist was fatigued

Use specific and accurate descriptors of what occurred

Better	The procedure was not indexed, and did not include tables or flowcharts, and as a result, the document was rarely used
Okay	The procedure was poorly written

Human error must have a preceding cause

Better	The level of urgency caused the scientist to rush and take shortcuts, resulting in the label not being checked
Okay	The scientist did not check the label

Violations of procedure must have a preceding cause

Better	Noise and distractions in the laboratory, and pressures to quickly complete the work increased the probability of bypassing the checking step; this resulted in the wrong result being issued
Okay	The staff member did not follow the procedure

Failure to act is only causal when there is a pre-existing duty to act

Better	The absence of an established procedure requiring checks for urgent orders every half hour, increased the likelihood that urgent orders would be missed or delayed, which led to a delay in the operation
Okay	The scientist did not check for urgent orders every half hour, which led to a delay in the availability of blood, increasing the likelihood of delaying the operation

CONTINUE

Lesson 2 of 3

Actioning an OQI

Actioning an OQI

Once the cause(s) has been identified then we need to decide what actions are needed.

Actions fall into two categories:

1. Immediate to address any consequences of the current issue and eliminate ongoing damage
2. Preventive to stop the problem from happening again.

Actions taken should be specific and achievable and documented clearly detailing:

- Which contributing factor this action is aimed at
- What needs to be done
- Who is going to do it
- When it will be completed
- How we will know it was successful (outcome measures)

- How and who will these changes be communicated to?

When considering what actions to adopt ask:

- [ ] What is best practice?
- [ ] How can we reduce reliance on memory and vigilance?
- [ ] How can devices, software, work processes or workspace be redesigned?

> **Remember! Simplifying the process and removing unnecessary steps reduces human error.**

Selecting the best error prevention action

This table lists error-prevention strategies in order of effectiveness for creating lasting system changes.

Those listed first are more powerful because they focus on changes to the system .

Strategies toward the end are familiar and often easy to implement but rely entirely on human vigilance and will not be effective for long lasting change

Error-Reduction Strategy	Power (leverage)
Fail-safes and constraints	High
Forcing functions	
Automation and computerisation	
Standardisation	
Redundancies	
Reminders and checklists	
Rules and policies	
Education and information	
Suggestion to be more careful and vigilant	Low

Rank order of error reduction strategies

Fail-safes and constraints

These are among the most powerful and effective error-prevention strategies.
They involve **true system changes** including how individuals interact within the system.

Example

- *the inability to open a centrifuge lid while the rotor is still spinning*
- *the inability to start a piece of equipment until all the correct start features are in place such as reagents loaded and door being closed*

Forcing functions

These are procedures that **create a "hard stop"** during a process to help ensure that important information is provided before proceeding.
Example

- *a transfusion computer system that prevents overriding selected high-alert messages without a notation (e.g., entry of the patient specific indication for selected error-prone blood group mismatches)*

Automation and computerization

These can **lessen human fallibility** by limiting reliance on memory.

Example

- *automated mixing of samples*
- *interfacing analysers to reduce transcription errors*
- *use of barcode readers*
- *auto-stop function on analysers when QC is out of range/fails*
- *automated decision making such as auto validation*

Standardisation

This creates a **uniform model to adhere to** when performing various functions and it tends to reduce the complexity and variation of a specific process.

Example

- *automated comments based on results*

On its own, standardisation relies on human vigilance to ensure that a process is followed; therefore, it is less effective than the strategies mentioned previously.

Redundancies

Redundancies incorporate duplicate steps or add another individual to a process **to force additional checks** in the system. Involving two individuals in a process reduces the likelihood that both will make the same error. However, the potential for error still exists since the redundant step may be omitted or ignored.

Example

- *requiring independent double-checks of high-risk steps such manual transfers*

Reminders and checklists

These help make **important information readily available**. .A study in the New England Journal of Medicine showed the use of simple checklists during surgery cut deaths and complications by a third.

Example

- *urgent labels used to distinguish products*
- *pre-printed templates that include prompts for important information*

Rules and policies

Rules and policies are useful and necessary in organisations. Effective rules and policies should **guide staff toward an intended positive outcome**. However, some may add unnecessary complexity and may be met with resistance, even rightfully so, especially when implemented in response to an error.
Because their use relies on memory, they should be used as a foundation to support more effective strategies that target system issues.

Education and information

> These are important tactics when combined with other strategies. The effectiveness of these tactics **relies on an individual's ability to remember what has been presented**. Thus, on their own, they offer little leverage to prevent errors.

While strategies at the bottom of the list may be used initially, we must realise that they will not be effective for long- lasting error prevention when used alone.

In order to do a better job at preventing errors, we need to **employ a variety of strategies** that focus on system issues and address human factors issues for those who work within that system, since people cannot be expected to compensate for weak systems.

When implementing error-prevention strategies we should adopt the most powerful strategies that can be practically implemented.

Avoid selecting weak risk-reduction strategies

- **Reminders** – While raising awareness can be meaningful, the effects tend to wear off quickly, particularly during times of high workload.
- **Understaffed/busy** – It can be easy to assert that people got stressed or that there was high workload, but this does not explain very much ..... What you can do to provide objective evidence is make an inventory of the demands in the situation, and the resources that people had available to cope with these demands?

CONTINUE

Lesson 3 of 3

Follow up and approval

Before approving and closing an OQI make sure the following questions have been addressed;

- [ ] How will we know the actions taken have been successful?
- [ ] How will we know the actions taken will be sustained?
- [ ] Do we need to schedule ongoing audits?
- [ ] Are there lessons learnt for other areas of the organisation?
- [ ] How will these be implemented?

Promises are not actions; the actions must be implemented before the OQI can be approved and closed out.

Summary

The effective investigation and actioning of OQIs/RiskMan events is integral to a learning organisation focusing on preventing reoccurrences and driving process improvements.

The RCA should:

- Find out what happened
- Find out why it happened
- Understand how to prevent it from happening again
- Focus primarily on systems and processes, not individual performance
- Minimise individual blame or retribution for involvement in medical error
- Be thorough and credible

THOROUGH	• Determine the factors most directly associated with the event • Analyse the underlying systems and processes through a series of 'why' questions to determine where redesign might
CREDIBLE	• Reviewed by individuals most closely involved in the process • Be internally consistent, not contradict itself or leave obvious questions

You have completed this training.

Name	iLearn - Date of Viewing Videos
Andrew Hardman	
Amanda May	09.02.2022
Bradley Van Luenen	02.09.2022
Bronwyn Lind	
Camilla Burnett	07.11.2022
Chantal Angus	25.07.2022
Daniel Smart	04.02.2022
Daphne Huang	14.04.2021
Darina Hnatko	09.12.2020
Dominique Scott	16.06.2022
Ishvi Williams	01.10.2022
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117 users enrolled in iLearn course
QIS2 videos available from 24.09.2020 to all FSS staff
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iLearn - Date of viewing Root Cause Analysis

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23.08.2022

Training Overview

TOPICS

History

Scope, Structure and Purpose

Standard Details: Section 4 - 6

Standard Details: Section 7

Standard Details: Section 8

CONCLUSION

Knowledge check quiz

Lesson 1 of 7

Training Overview

Welcome!

Let's begin with a brief overview of this training module so you understand what to expect.

"Accreditation to ISO 17025 demonstrates our technical competence, and provides confidence in the operation of our laboratories"

- He en Gregg, Qua ity Manager

By the end of this competency, you will

- Learn the history behind ISO 17025
- Understand the scope, structure and purpose of ISO 17025

- Know the requirements of ISO 17025
- Understand how ISO 17025 is relevant to your work area

Now that you know the who and the why, let's start exploring.

Lesson 2 of 7

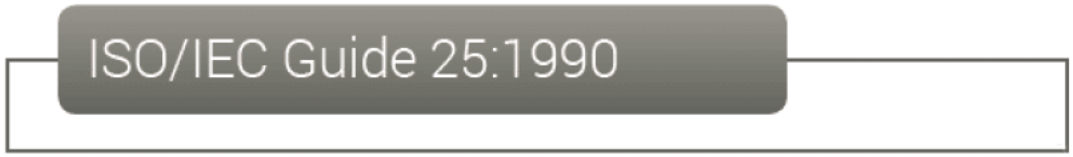
History

1978 – 1990

ISO Guide 25, Version 1-3

ISO/IEC 17025 was originally known as ISO/IEC Guide 25, first released in 1978, with subsequent editions following in 1982 and 1990.

Guide 25 was created with the belief that third party certification systems for laboratories should be based on internationally agreed standards and procedures.



1999

ISO 17025 (ISO Guide 25, Version 4)

In 1999, the ISO decided to convert the guide into a standard and align it with ISO 9001, such that ISO 9001 would be the 'master standard' and ISO 17025 would be treated as a standard to

be specifically applied to testing and calibration laboratories.

2005

ISO 17025:2005

A second release of ISO 17025 was made on May 12, 2005 after it was agreed that the standard needed to have its wording more closely aligned with the 2000 version of ISO 9001.

This version had a greater emphasis on the responsibilities of senior management, explicit requirements for continual improvement of the management system itself, and communication with the customer.

2017

ISO 17025:2017

At the end of 2017, the ISO released the current version, ISO/IEC 17025:2017. This update brought with it broader scope in sampling, testing, and calibration; a more consistent

process approach; a stronger focus on information technologies; and the addition of risk-based thinking.

In the next lesson, you'll explore the scope, structure and purpose of ISO 17025

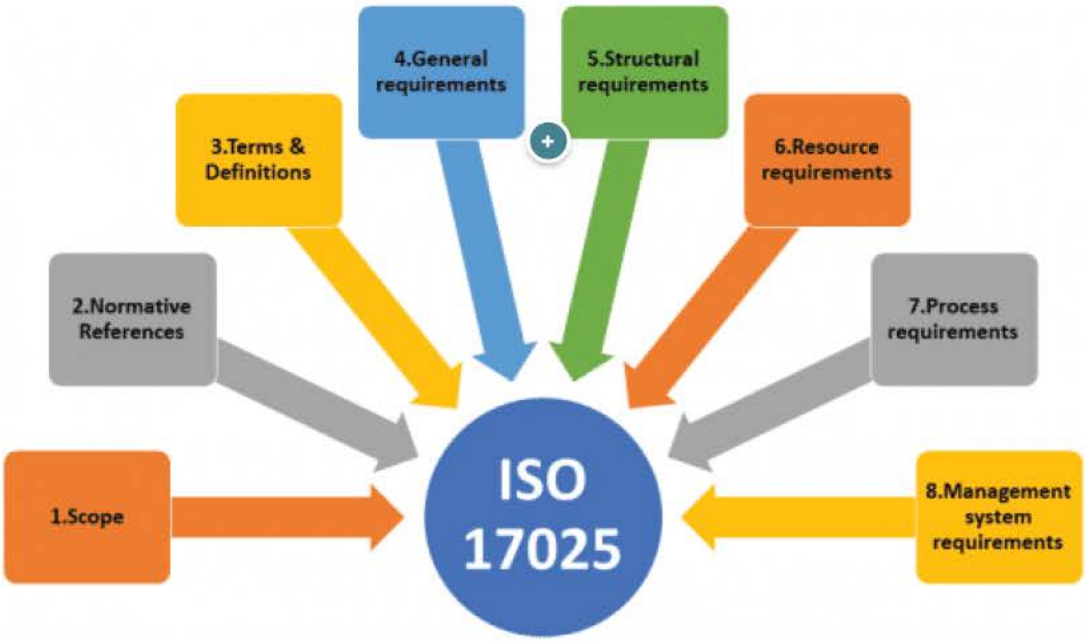
Lesson 3 of 7

Scope, Structure and Purpose

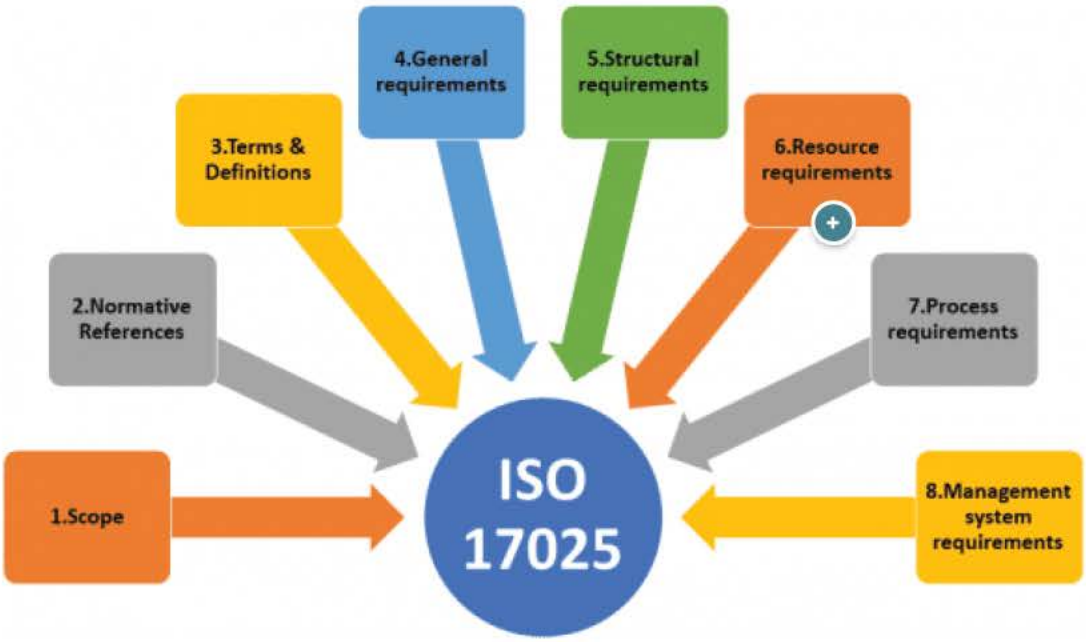
ISO 17025: General requirements for the competence of testing and calibration laboratories


4.General requirements
5.Structural requirements
3.Terms & Definitions
6.Resource requirements
2.Normative References
7.Process requirements
ISO 17025
1.Scope
8.Management system requirements

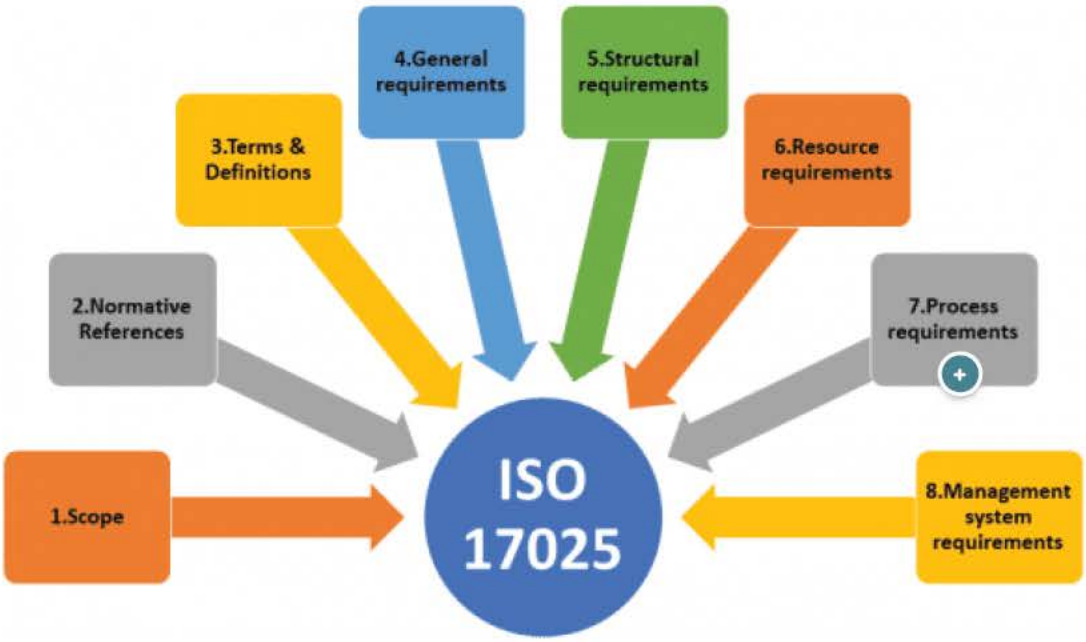
ISO 17025 comprises eight sections. Sections 1–3 are introductory.



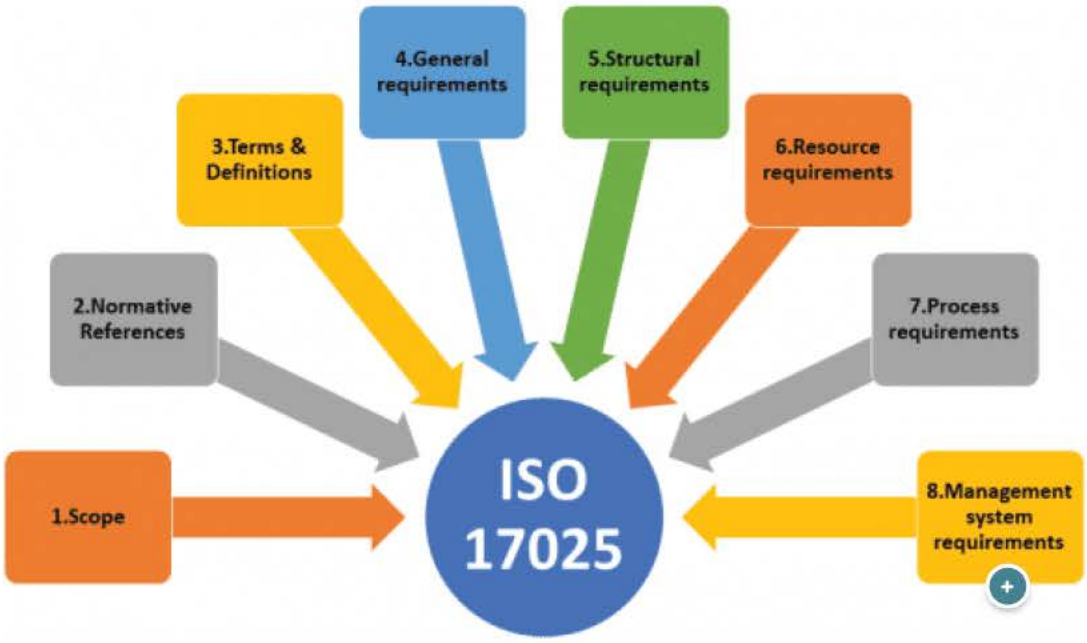
Sections 4 and 5 (General and Structural requirements) relate to the organisation of the laboratory itself.



Section 6 (Resource Requirements) relates to the people, plant, and other organisations used by the laboratory to produce its technically valid results.



Section 7 is the heart of the standard, and details activities to ensure that results are based on accepted science and aimed at technical validity.



Section 8 details the steps taken by the organisation to give itself tools to support the work of its people in the production of technically valid results.

CONTINUE

Additional Accreditation Criteria

ISO 17025 is titled '**General** Requirements for the competence of testing and calibration laboratories', and because of this it is quite generic. Thus, NATA have developed additional accreditation criteria that the laboratory must comply with, and these are detailed in;

- General Accreditation Criteria: applicable across all accredited laboratories, and

- Specific Accreditation Criteria: applicable to only one activity (e.g. Legal or life sciences)

These documents have additional requirements for some (but not all) clauses of ISO 17025.

GENERAL CRITERIA | SPECIFIC CRITERIA

Standard Application Document (SAD)

The most important document in this group is the Standard Application Document (SAD), which has additional requirements for;

- Personnel
- Equipment
- Measurement traceability
- External Providers
- Selection of methods
- Sampling
- Technical records
- Proficiency testing
- Reports

GENERAL CRITERIA | SPECIFIC CRITERIA

Specific Accreditation Criteria
These consist of a suite of document, that are relevant to specific fields and specific testing.

- **Additional Legal Requirements**
  - Management authority
  - Court testimony monitoring

- Lab security and access
- Continuity
- Peer review

- **Additional Life Science Requirements (Chemical and Biological)**
  - Qualifications for staff authorised to release results
  - Sampling
  - Method validation
  - Comments/ interpretations on reports

Annexes for specific testing

- Crypto/ Giardia testing
- Media preparation
- Culture collections

CONTINUE

Have a go!

Determine which Specific Accreditation Appendix applies for each Org Unit at FSS

Life Sciences

Inorganics

Organics

Radiation and Nuclear Sciences

Microbiology

Legal

Forensic DNA Analysis

Forensic Chemistry

Forensic Toxicology

CONTINUE

Corporate accreditation

Corporate accreditation allows facilities to combine a number of accreditations into one.

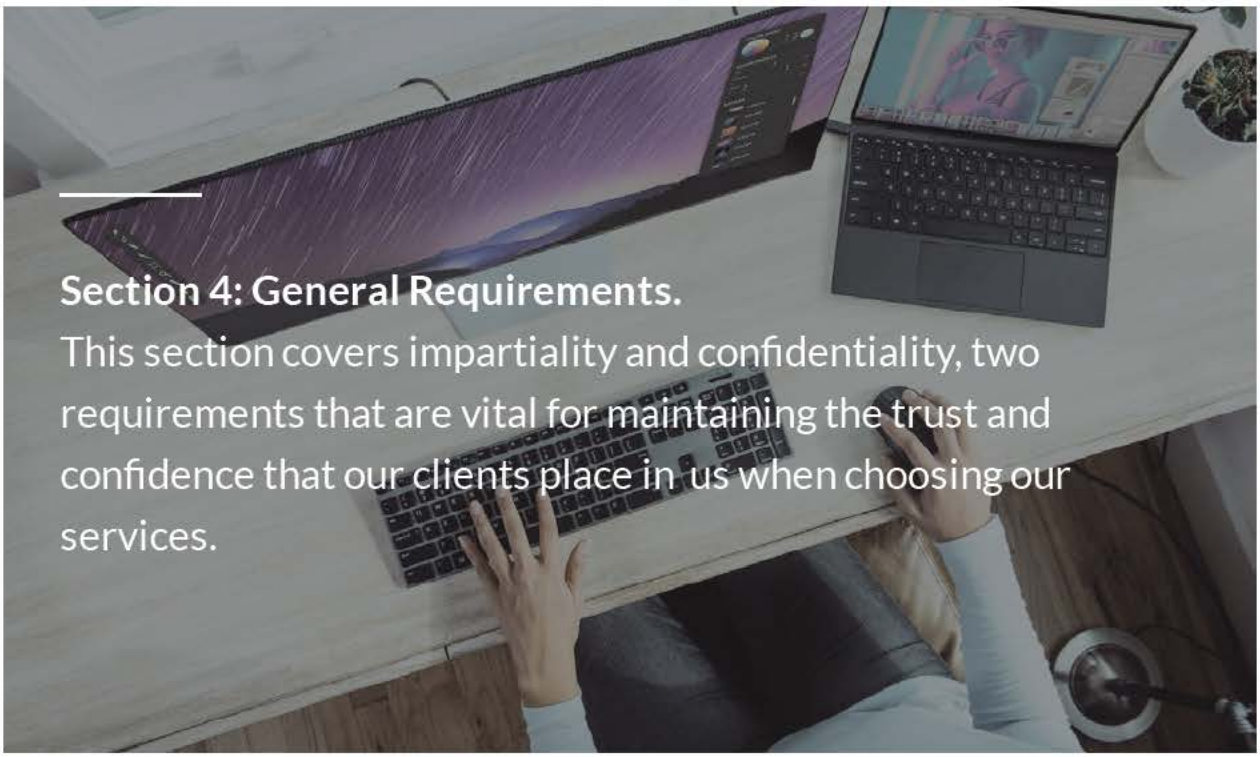
Efficiencies can be gained as accreditations are centrally managed and operated under a single management system. Is is not necessary to duplicate the assessment of all elements of the system at each laboratory covered by the corporate accreditation.

FSS has corporate accreditation, meaning that the management requirements of ISO 17025 are assessed separately, and the laboratory assessment can focus primarily on the technical requirements with lesser focus on the management requirements.

In the next lesson, we will delve deeper into ISO 17025 requirements

Lesson 4 of 7

Standard Details: Section 4 - 6



4.1 Impartiality

Impartiality is defined as the 'presence of objectivity'. This clause requires the lab to;

- perform tests in an impartial manner
- not allow commercial, financial or other pressures to compromise impartiality

- identify risks to impartiality and action these

> **Under no circumstance is the lab allowed to let a conflict of interest impact its results, and the lab must identify any risk to impartiality on an ongoing basis. If a risk or impartiality is identified, the lab must take corrective action and demonstrate how it has been eliminated or minimised.**

4.2 Confidentiality

The lab;

- is responsible for the management of information obtained or created during laboratory activities and is held legally responsible for this information.
- must inform the customer in advance of information it intends to place in the public domain
- must notify the customer if required by law to release any information (unless prohibited by law)

All other information is confidential

CONTINUE

Section 5: Structural Requirements

The laboratory must define and document the following about the laboratory operations:

- The organisational structure
- The management with responsibility
- The responsibility of the laboratory personnel
- The activities of the laboratory (i.e. what is accredited)
- Specify responsibility, authority and interrelationships of all personnel

The laboratory must ensure personnel have the authority and resources to carry out their duties, and management must communicate on the effectiveness of the system and meeting customer requirements

How does FSS meet the requirements of this clause?

- [ ] Job descriptions
- [ ] Organisational charts

☐ Team meetings

SUBMIT

Documentation

This section also requires the laboratory to document procedures to the extent necessary in order to provide consistent services, and ensure that the results are valid.

Procedures don't have to be word documents, they can be flowcharts or checklists, whatever works!

CONTINUE

Section 6: Resource Requirements

6.1 General resource requirements

There are six clauses that require the laboratory to have available the personnel, facilities, equipment, systems, and support services necessary to perform its laboratory activities.

6.2 Personnel

Flip the cards to find out more!

Requirements	The lab must document the competency requirements, including education, qualification, training, technical knowledge, skills and experience

1 of 4

Gap analysis	The lab must evaluate gaps in competency, and communicate to personnel their duties, responsibilities and authorities

2 of 4

Records

There must be records of selection, training, authorisation and monitoring of competence

3 of 4

Authorisation to perform work

Staff must be authorised to perform activities, including the development of methods, and reporting

4 of 4

CONTINUE

6.3 Facilities and Environmental Conditions

- Conditions shall not adversely affect results (temperature, humidity, vibration etc.)
- Required conditions shall be documented
- Monitor, control and record conditions where they influence the validity of results
- Implement measures to control facilities (e.g. access, prevention of contamination, separation between incompatible activities)

Match the activity to the requirement

SUBMIT

CONTINUE

6.4 Equipment

- Have access to the required equipment
- Have procedure for handling, transport, storage, use and planned maintenance of equipment
- Verify equipment prior to use or on return to service
- Have required accuracy and/or MU
- Calibrate when accuracy or MU affects validity of result or if need metrological traceability of reported result
- Label equipment to identify status of calibration or period of validity
- Take equipment out of service when required and isolated to prevent use or labelled 'out of service'. Examine effect of defect/ deviation and initiate action
- Perform required checks and calibrations
- Update correction values for calibrations when changed
- Prevent unintentional adjustment of equipment
- Keep equipment records

Requirements are the same if we use others equipment

CONTINUE

6.5 Metrological traceability

Laboratories must establish and maintain metrological traceability of their measurement results using a documented unbroken chain of calibrations, each contributing to measurement uncertainty and linking them to an appropriate reference.

The measurement results need to be traceable to the International System of Units (SI) in one of these three ways:

- Calibration provided by a competent laboratory
- Certified values of certified reference materials provided by a competent producer with stated metrological traceability to the SI
- Direct realization of the SI units ensured by comparison, directly or indirectly, with national or international standards

Where the above is not possible, the laboratory must demonstrate metrological traceability to an appropriate reference (e.g. CRM, reference procedures, method or consensus standards).

CONTINUE

6.6 Externally provided products and services

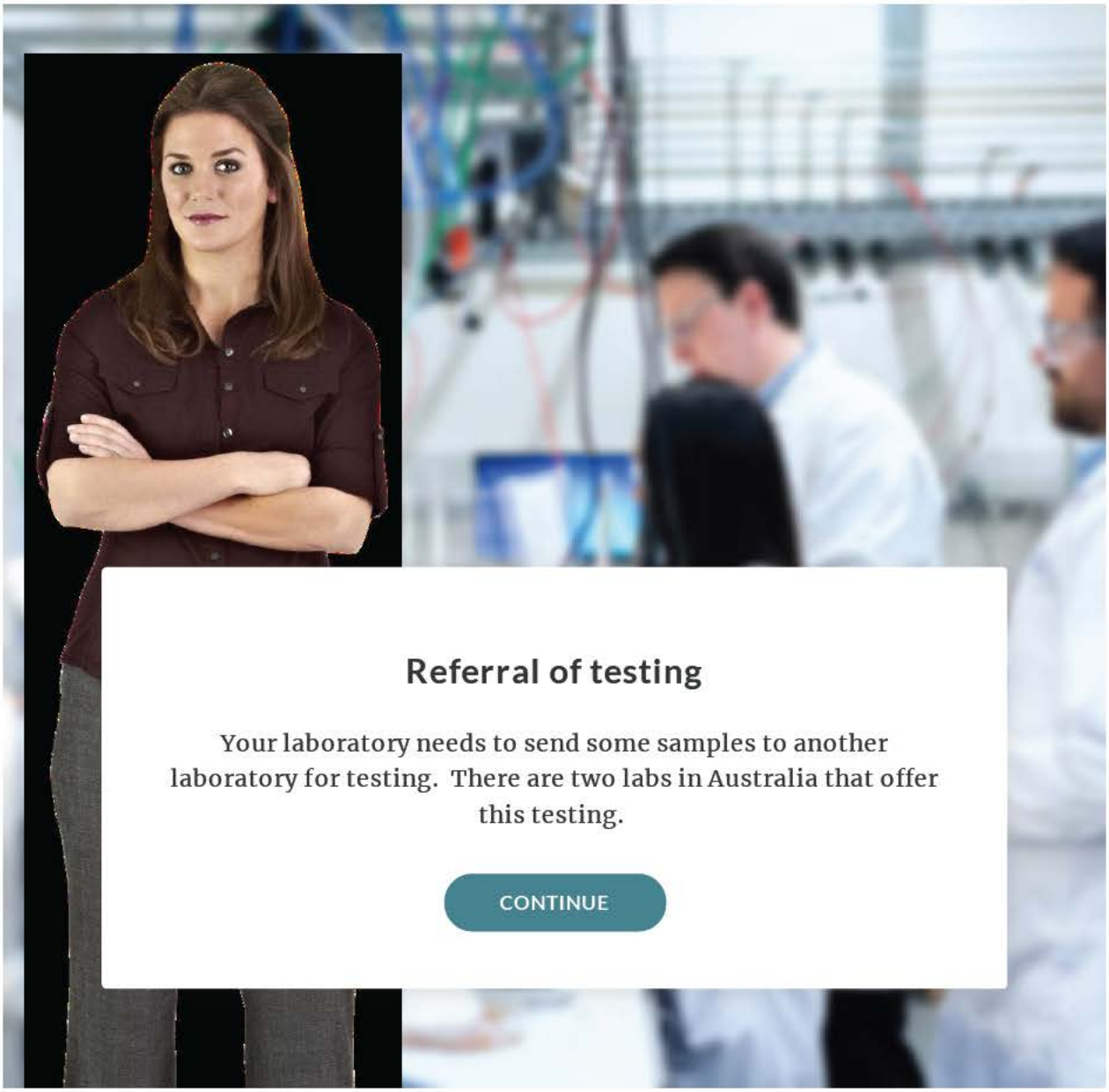
ISO/IEC 17025 laboratories need to ensure that they use suitable externally provided products and services if they have an impact on the laboratory's activities e.g. equipment, consumables, calibration, or referral testing.

The laboratory must have a procedure and maintain records for:

- defining, reviewing and approving requirements for external providers
- criteria for the evaluation, selection, monitoring and re-evaluation of external providers
- ensuring that external providers meet the labs requirements
- take actions arising from evaluations, monitoring and re-evaluation of external providers

The laboratory must also communicate its requirements to external providers e.g. products and services, acceptance criteria, etc

CONTINUE



Scene 1 Slide 1

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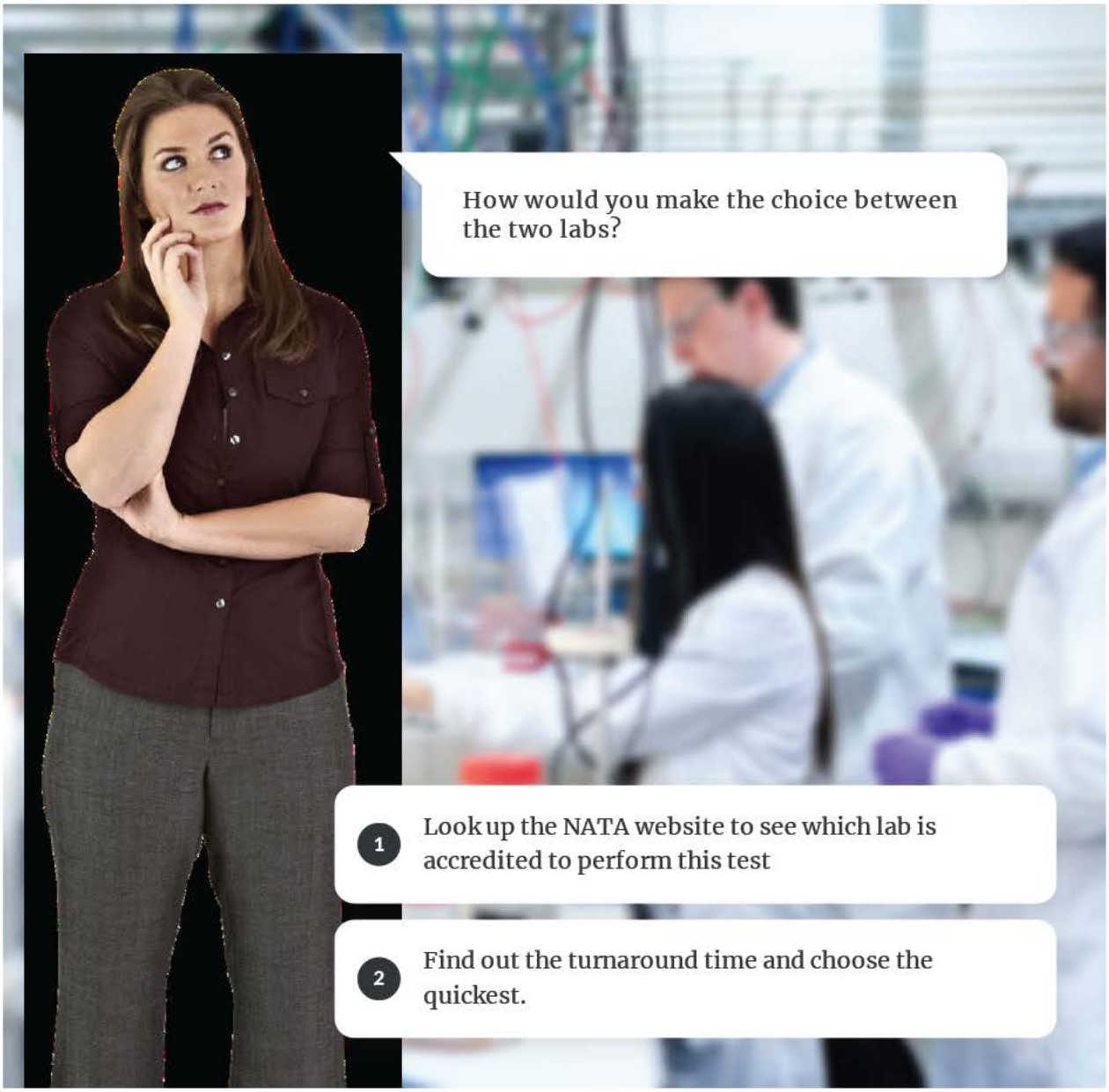

Scene 1 Slide 2

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CONTINUE

Let's Recap!

Identify the relevant clause of ISO 17025 in relation to a laboratory

SUBMIT

In the next lesson, you'll explore the heart of ISO 17025 - Section 7

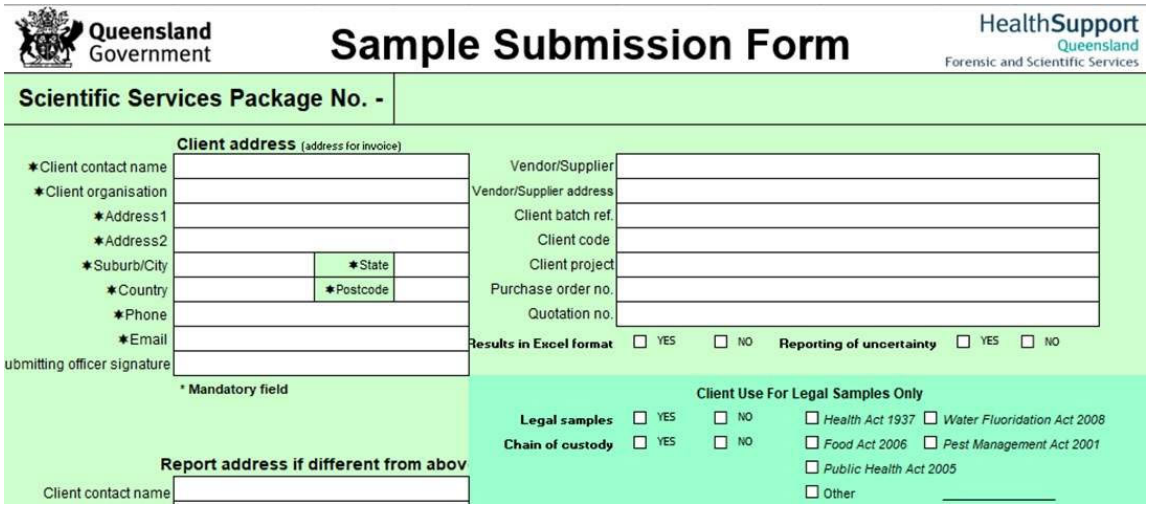
Lesson 5 of 7

Standard Details: Section 7

Section 7: Process Requirements

7.1 Review of requests, tenders and contracts

Tests are initiated through a request. The request may be submission of a sample with request form, or the result of a formal tender and contract.



Queensland Government

Sample Submission Form

HealthSupport Queensland Forensic and Scientific Services

Scientific Services Package No. -

Client address (address for invoice)

*Client contact name
*Client organisation
*Address1
*Address2
*Suburb/City *State
*Country *Postcode
*Phone
*Email
ubmitting officer signature

* Mandatory field

Report address if different from abov

Client contact name

Vendor/Supplier
Vendor/Supplier address
Client batch ref.
Client code
Client project
Purchase order no.
Quotation no.

Results in Excel format ☐ YES ☐ NO **Reporting of uncertainty** ☐ YES ☐ NO

Client Use For Legal Samples Only

Legal samples ☐ YES ☐ NO ☐ *Health Act 1937* ☐ *Water Fluoridation Act 2008*
Chain of custody ☐ YES ☐ NO ☐ *Food Act 2006* ☐ *Pest Management Act 2001*
☐ *Public Health Act 2005*
☐ Other _____

FSS Public Health sample submission form

This clause requires the laboratory to have a procedure to review these requests to;

- Determine that the requirements of the contract are adequately documented and understood (e.g. test to be performed, method, etc.)
- determine whether the laboratory has the capability and capacity to do the work
- suitable methods are selected and are capable of meeting the customer's requirements
- resolve any differences before testing commences

It also requires the lab to have good communication with the customer, informing them if their requested method is inappropriate or out of date, and to resolve any difference before the testing commences.

Any deviations from the method requested by the customer must not affect test results, and the customer must be informed of any deviations from the contract.

Obviously, records need to be kept that the review has occurred, as well as any discussion with the customer.

CONTINUE

Statements of conformity and decision rules

What is a statement of conformity?

Before you think about decision rules, you first need to decide how you are going to handle statements of conformity.

A statement of conformity is an expression that clearly describes the state of compliance or non-compliance to a specification, standard, or requirement.

Common Examples of Conformity Statements

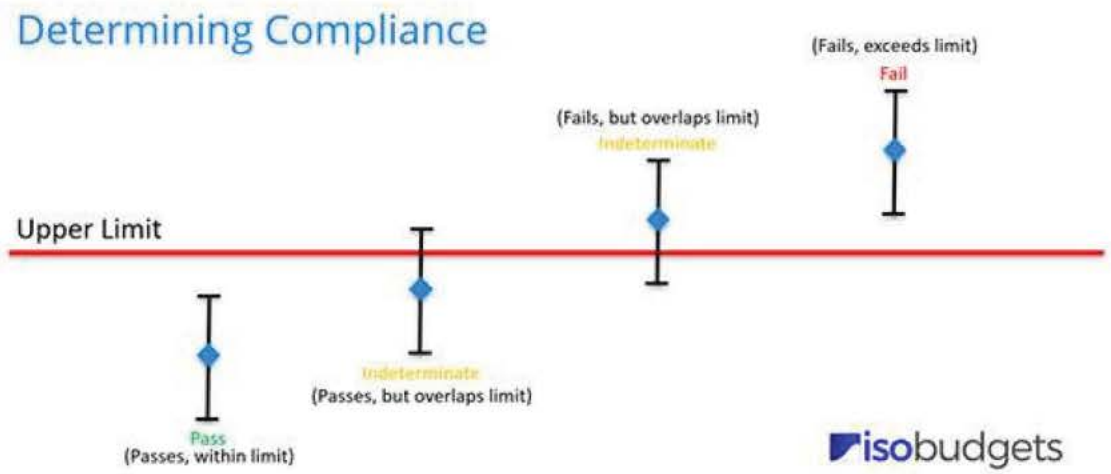
- Pass / Fail
- In Tolerance / Out of Tolerance
- Compliant / Non-compliant

If you do not provide statements of conformity, then you do not need to consider decision rules.

What is a decision rule?

A decision rule is *a rule which describes how measurement uncertainty (MU) is accounted for when stating conformity with a specified requirement'*

So when determining compliance, we must consider the 'indeterminate' zone.



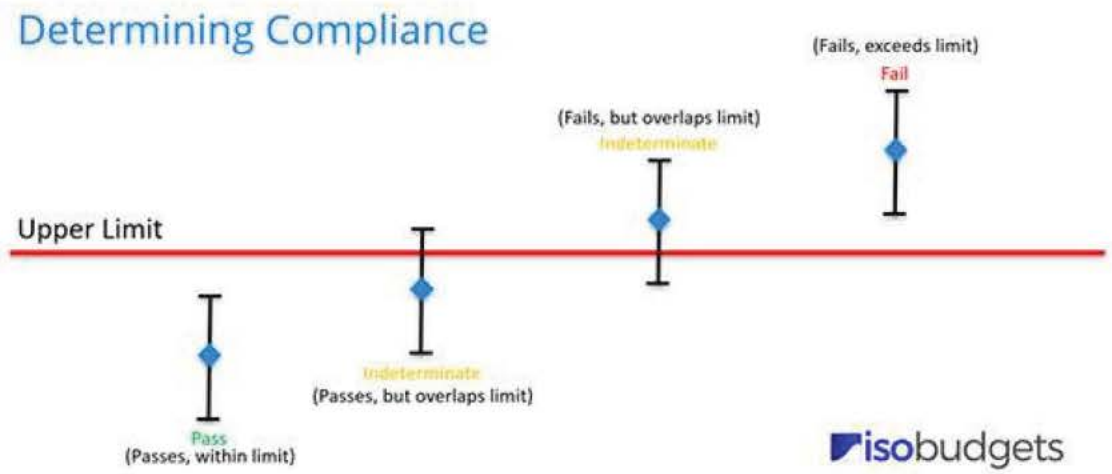
Requirements for decision rules

If you are providing a statement of conformity, then you need to clearly define the decision rule, communicate it to, and have it agreed by the customer.

Options for decision rules

When documenting, applying, and reporting decision rules, you have a few options. Most accredited laboratories use one of the following three options:

1. Take uncertainty into account when making conformity statements,
2. Do not take uncertainty into account when making conformity statements, or
3. Do not make conformity statements.



Requirements for decision rules

If you are providing a statement of conformity, then you need to clearly define the decision rule, communicate it to, and have it agreed by the customer.

Options for decision rules

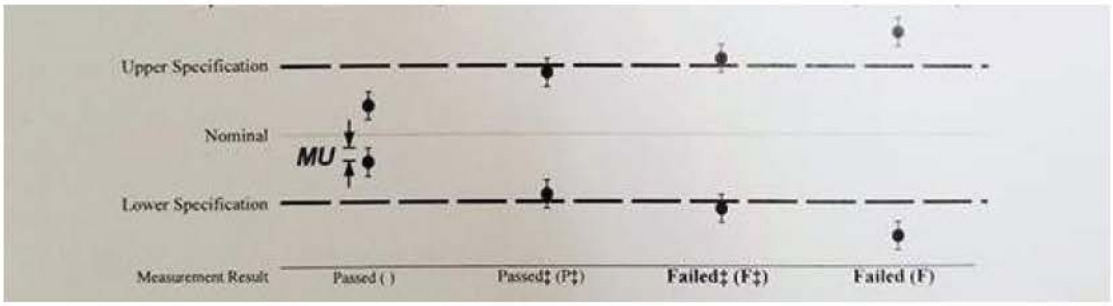
When documenting, applying, and reporting decision rules, you have a few options. Most accredited laboratories use one of the following three options:

1. Take uncertainty into account when making conformity statements,
2. Do not take uncertainty into account when making conformity statements, or
3. Do not make conformity statements.

TAKE UNCERTAINTY INTO ACCOUNT	DON'T ACCOUNT FOR UNCERTAINTY	NO CONFORMITY STATEMENTS

In this example, Keysight Technologies documents and applies decision rules and provides statements of conformity in their calibration certificates.
"Where statements of conformity are made in this report, the following decision rules are applied:

1. *PASS – Results ± expanded uncertainty within limits/specifications*
2. *PASS‡ – Results are within limits/specifications but overlap when expanded uncertainty is taken into account*
3. *FAIL‡ – Results exceed limits/specifications but overlap when expanded uncertainty is taken into account*
4. *FAIL – Results ± expanded uncertainty exceeds limits/specifications"*



TAKE UNCERTAINTY INTO ACCOUNT	DON'T ACCOUNT FOR UNCERTAINTY	NO CONFORMITY STATEMENTS

Here, Epsilon provides a statement of conformity without taking measurement uncertainty into account. So, Epsilon states "PASS" in their calibration report but states that results 'are not compensated for temperature or uncertainty'

Example wording for your report may be;
"*Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account except when requested by the customer. Where statements of conformity are made in this report, the following decision rules are applied:*

1. *PASS – Results within limits/specifications*
2. *FAIL – Results exceed limits/specifications"*

Please note: This practice is not favoured

Calibration Certificate

3590VHR Calibration stand

Epsilon TECHNOLOGY CORP

Doc #: [redacted]	Model:	3590VHR	
	Model S/N:	[redacted]	
	Calibration Date:	5-Oct-18	
	Scale S/N:	[redacted]	
	Temperature:	71.2 °F	
	Humidity:	34%	

XL-80 Laser, Calibrated 7-Feb-18

S/N: 7X5897 Certificate Number: 7X5897-180207-00

Traceability Info

Model #	Certificate No.	Cal Date	Cal Lab
MTE/A197	2016050379-LL03	28-Jun-16	NPL
MTE/A163	17-60305	27-Jul-17	Nationwide
XL80 REF5	H52176-180111-00	11-Jan-18	Renishaw

As Found / As Left (PASS, No Change)

For use in extensometer calibrations in accordance with the American Society for Testing and Materials, ASTM standard E83, or any other standards, the requirements of the standard should be used to determine the class to which any particular extensometer may be calibrated. This calibration stand was calibrated using a method developed at Epsilon Technology and detailed in the Calibration and Maintenance Procedure. The information on this certificate applies only to the item with the serial number listed above and the calibration direction is in tension. Uncertainty of Calibration U = 2.56 µin, with a coverage factor (k) of 2, expanded uncertainty for each calibration stand. Results below are raw data and are not compensated for temperature or uncertainty. It is the responsibility of the end user to determine if it is appropriate for your specific application. If more than one calibration certificate exists for a single unit, the certificate with the most recent date should be considered to supersede all previous certificates.

TAKE UNCERTAINTY INTO ACCOUNT	DON'T ACCOUNT FOR UNCERTAINTY	NO CONFORMITY STATEMENTS

Here, Fluke Calibration does not provide statements of conformity, and instead uses symbols to indicate that a result may need to be reviewed further.

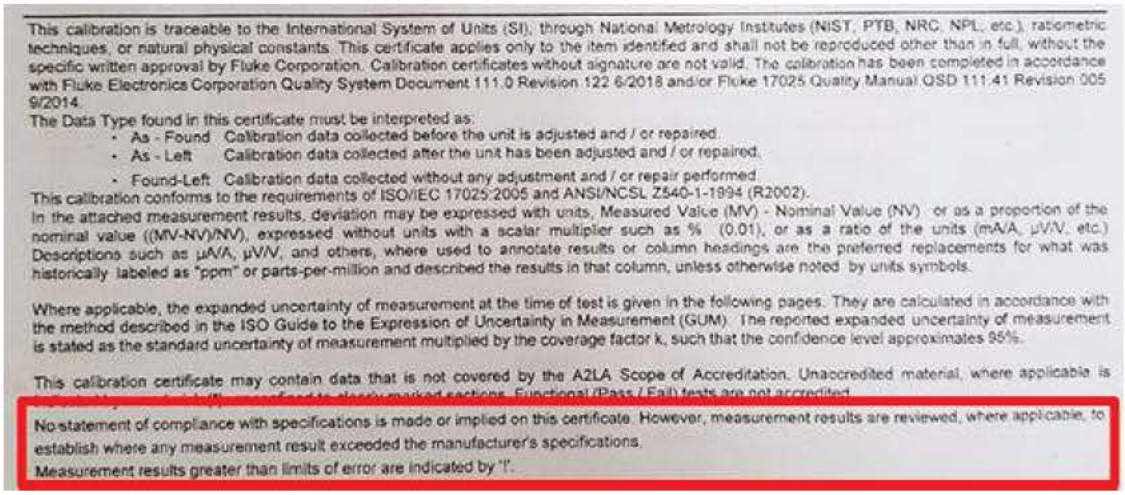
In the image below, the certificate states:
"*No statement of compliance with specifications is made or implied on this certificate. However, measurement results are reviewed, where applicable, to establish where any measurement result exceeded the manufacturer's specifications. Measurement results greater than limits of error are indicated by '!'.*"

If a laboratory offers testing against a specification, but it does not report the results as pass / fail, and instead issues the numerical values and the associated MU, then this is still acceptable.

In such a case the lab is not actually determining whether the item tested conforms, but is instead providing the result and MU to the customer for them to determine compliance. It is important that the lab provides the MU so that the customer can make an informed decision especially if results fall around the specification cut-off limits.

Remember to not provide any information in your reports that may be considered a statement of conformity. An example statement for reports may be;

"*Statements of conformity to specifications are not made or implied in this report. Review the results, expanded uncertainty, and specifications to ensure they meet your requirements.*"



This calibration is traceable to the International System of Units (SI), through National Metrology Institutes (NIST, PTB, NRC, NPL, etc.), ratiometric techniques, or natural physical constants. This certificate applies only to the item identified and shall not be reproduced other than in full, without the specific written approval by Fluke Corporation. Calibration certificates without signature are not valid. The calibration has been completed in accordance with Fluke Electronics Corporation Quality System Document 111.0 Revision 122 6/2018 and/or Fluke 17025 Quality Manual QSD 111.41 Revision 005 9/2014.

The Data Type found in this certificate must be interpreted as:

- As - Found Calibration data collected before the unit is adjusted and / or repaired.
- As - Left Calibration data collected after the unit has been adjusted and / or repaired.
- Found-Left Calibration data collected without any adjustment and / or repair performed.

This calibration conforms to the requirements of ISO/IEC 17025:2005 and ANSI/NCSL Z540-1-1994 (R2002).

In the attached measurement results, deviation may be expressed with units, Measured Value (MV) - Nominal Value (NV) or as a proportion of the nominal value ((MV-NV)/NV), expressed without units with a scalar multiplier such as % (0.01), or as a ratio of the units (mA/A, µV/V, etc.) Descriptions such as µA/A, µV/V, and others, where used to annotate results or column headings are the preferred replacements for what was historically labeled as "ppm" or parts-per-million and described the results in that column, unless otherwise noted by units symbols.

Where applicable, the expanded uncertainty of measurement at the time of test is given in the following pages. They are calculated in accordance with the method described in the ISO Guide to the Expression of Uncertainty in Measurement (GUM). The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k, such that the confidence level approximates 95%.

This calibration certificate may contain data that is not covered by the A2LA Scope of Accreditation. Unaccredited material, where applicable is

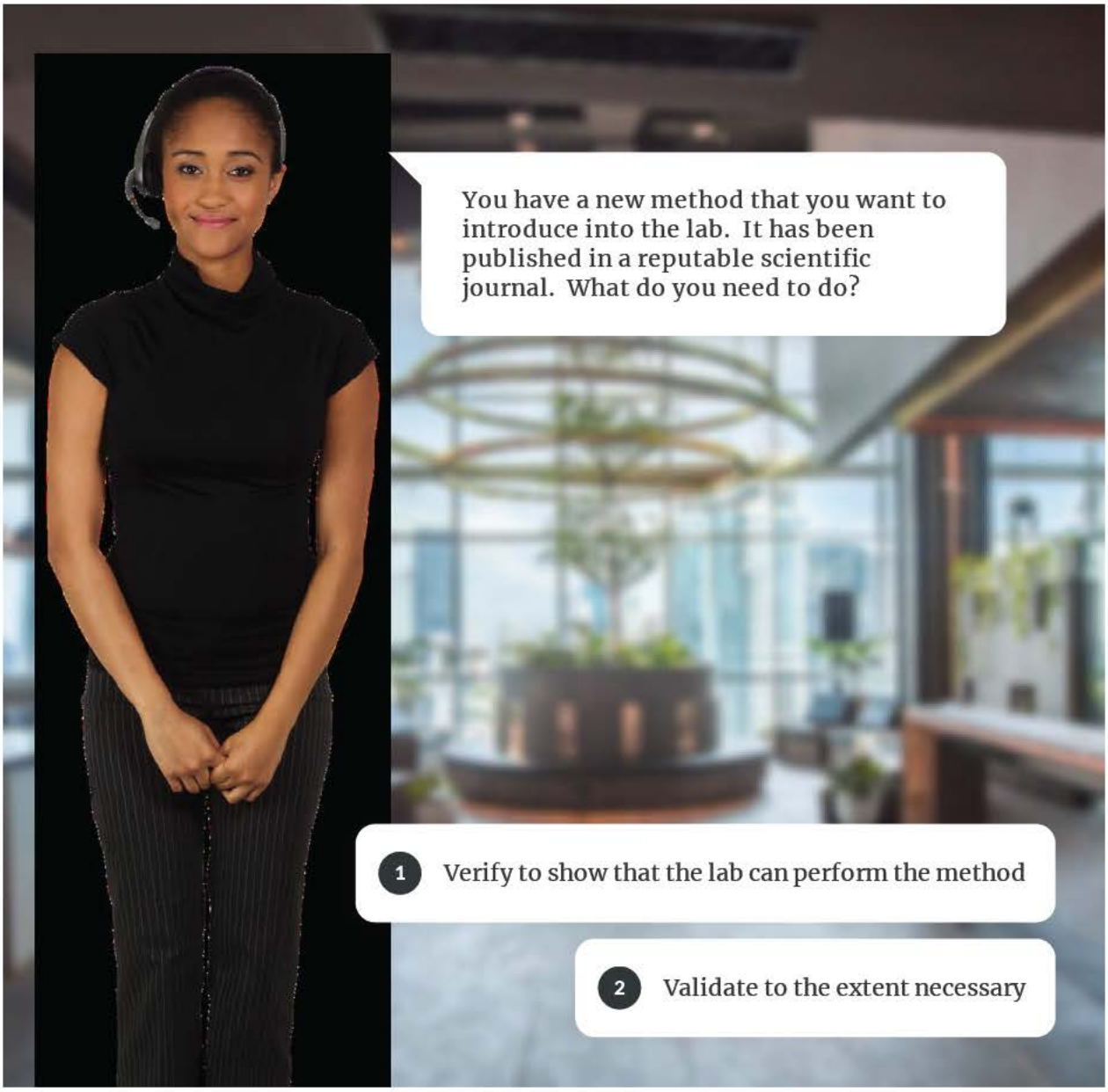
No statement of compliance with specifications is made or implied on this certificate. However, measurement results are reviewed, where applicable, to establish where any measurement result exceeded the manufacturer's specifications.
Measurement results greater than limits of error are indicated by 'I'.

CONTINUE

7.2 Selection, verification and validation of methods

The selection, verification, and validation of methods is crucial for the technical validity of results issued to a customer. The standard requires laboratories to:

- Use appropriate methods
- Ensure methods are up to date, and readily available
- Use the latest version of standard methods (if these are used)
- Verify standard methods before introduction into the lab to to ensure it can achieve the required performance.
- Have method development planned and performed by competent personnel
- Ensure deviations from the method are accepted by the customer
- Validate non-standard methods
- Verify any changes to methods
- Retain records to show that the above has been done



Scene 1 Slide 1

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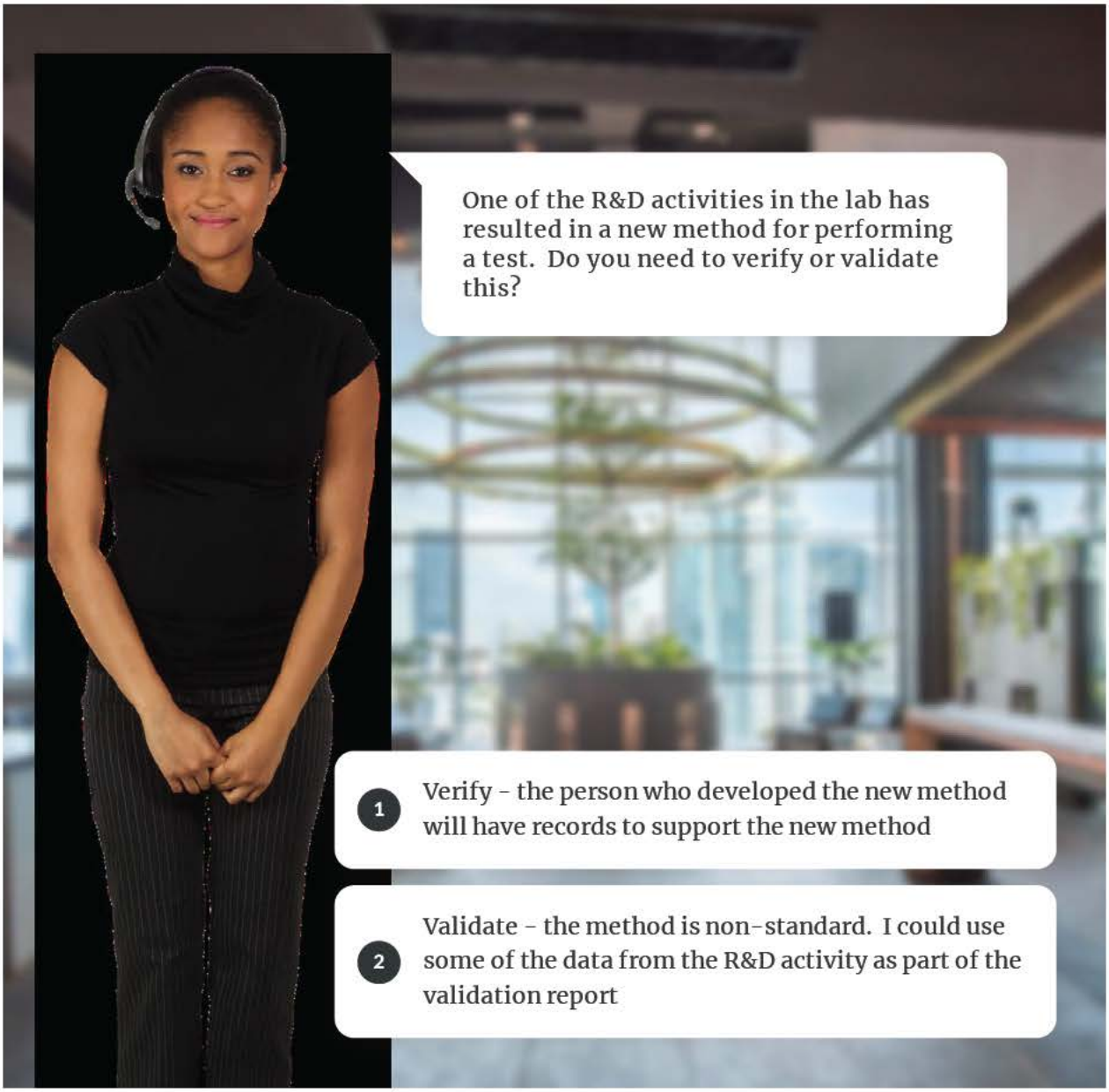

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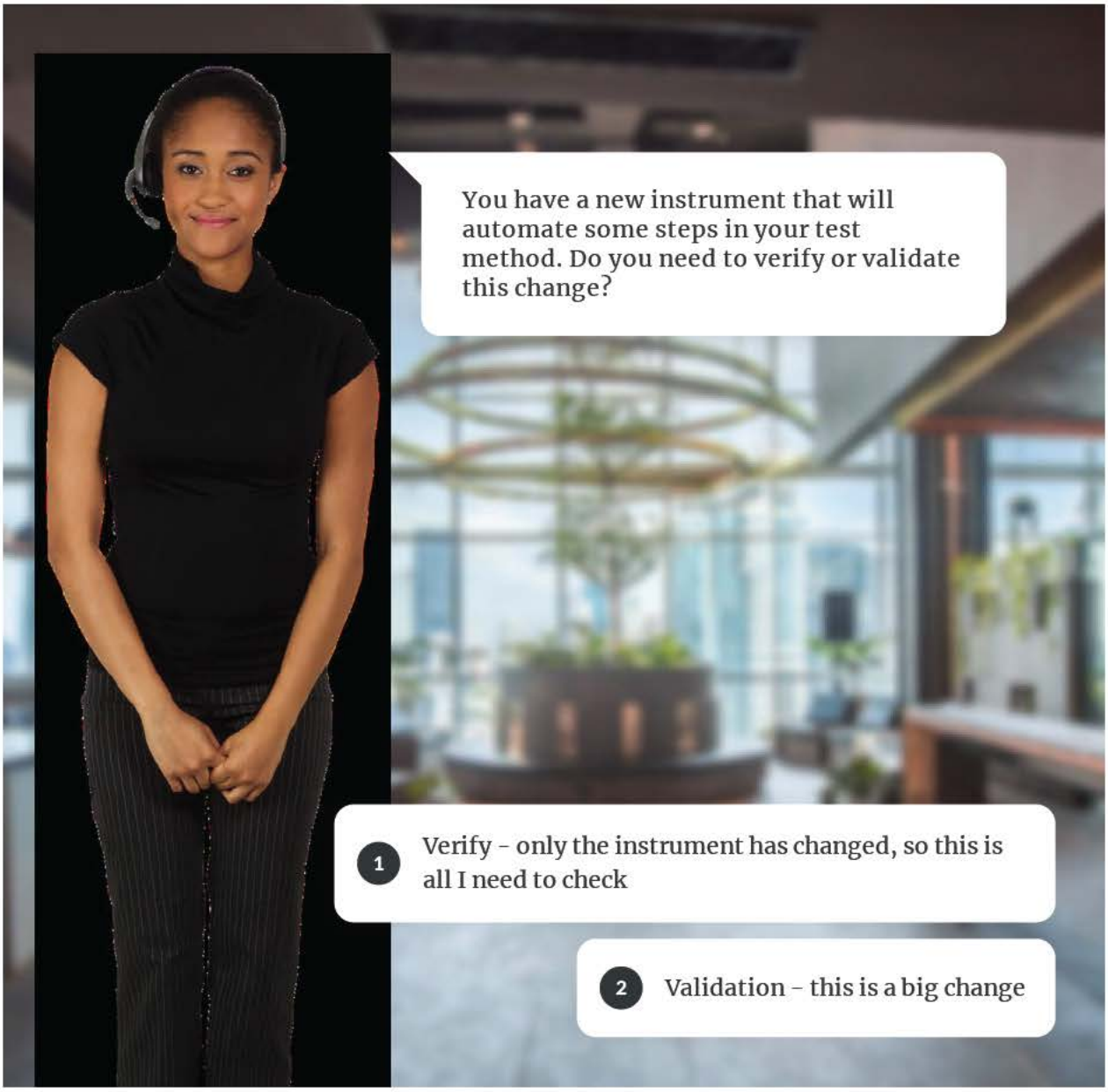

Scene 1 Slide 3

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CONTINUE

7.3 Sampling

This clause applies when the lab performs sampling of items that will be tested.

The lab must;

- have a sampling plan, to ensure suitable sampling methodology, that is based on valid statistical methods
- have the plan available at site
- maintain all necessary records of sampling

Records for sampling include

- [ ] date and time of sampling
- [ ] identity of the person collecting the sample
- [ ] description of the sample

☐ transport conditions

SUBMIT

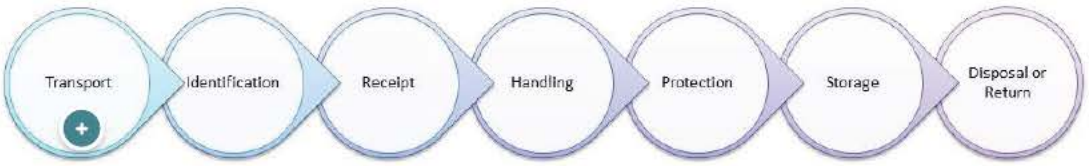
CONTINUE

7.4 Handling of test or calibration items

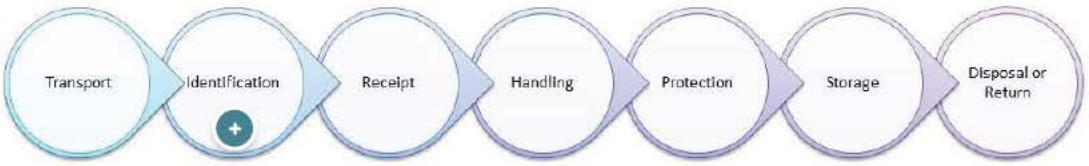
This clause contains requirements for the transport, identification, receipt, handling, protection, storage, retention and disposal of test items/samples.

It requires that if there is a problem with the sample on receipt, that this is discussed with the customer. If testing proceeds and results may be affected, this is to be identified on the report..


Transport
Identification
Receipt
Handling
Protection
Storage
Disposal or Return

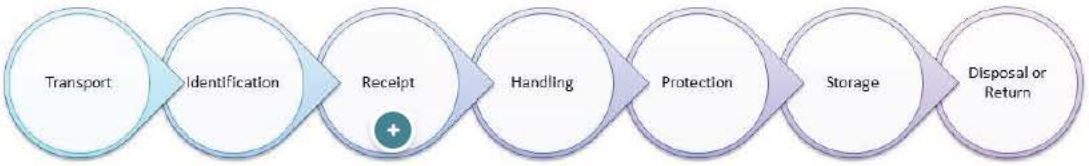


procedures for transport, receipt, storage, disposal and return of test items



Unique identification of the item

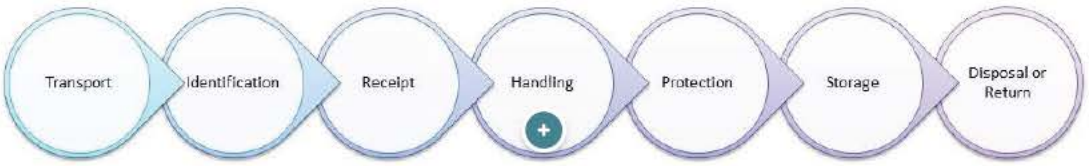
Accommodate subdivision



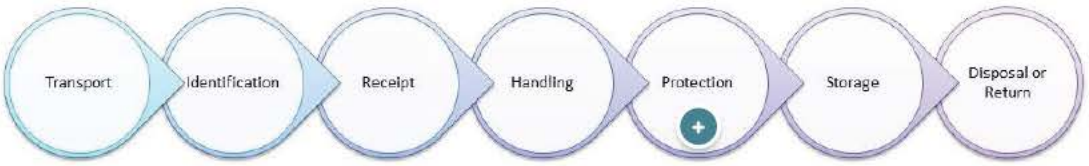
Deviations on receipt recorded

If a problem, consult with the customer before proceeding

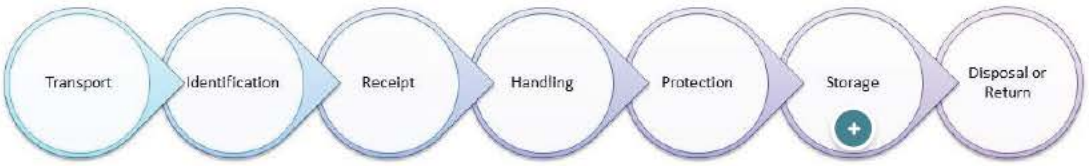
If customer wishes to continue, add disclaimer to report indicating which results may be affected



Protect the integrity of the item



Specified environmental conditions shall be maintained, monitored and recorded



Storage conditions maintained, monitored and recorded

CONTINUE

7.5 Technical records

Technical records are usually kept in the laboratory information system

Lab records must:

- contain results, reports and sufficient information to allow for the repetition of the test under conditions as close as possible to the original
- contain the date and identity of the personnel responsible for each activity and for checking the data and results
- record original observations at the time they are made
- track amendments to records to previous versions/observations
- retain original and amended data and files, including the date of alteration, what was altered and the staff responsible for the alteration

CONTINUE

7.6 Evaluation of Measurement Uncertainty (MU)

The laboratory needs to identify the contributions to the uncertainties. When evaluating uncertainty, you need to consider all contributions that are significant, even arising from sampling.

Where unable to evaluate measurement uncertainty, labs should make estimates of uncertainty based on theoretical principles or practical experience.

CONTINUE

7.7 Ensuring the validity of results

As an ISO/IEC 17025:2017 accredited lab, ensuring the validity of results should be a top priority

This clause requires labs to ensure that the results are valid through a process of internal and external quality controls.

Labs must;

- have procedures to monitor result correctness
- analyse data to detect trends, using statistical analysis where possible
- monitor lab performance by comparison of results with other labs (e.g. proficiency testing, inter-lab comparison)
- use data to identify improvement opportunities
- take action to prevent the release of incorrect results

Types of ways to ensure the validity of results

Retesting of retained items	Internal check
Testing of blind samples between labs	Interlaboratory comparison
Use of control charts	Internal QC
Purchase and testing of commercial PT programs	Proficiency testing

SUBMIT

CONTINUE

7.8 Reporting of results

This clause is the longest in the standard, and this is quite understandable, as test reports are a legal document, and the final output of a contracted service for a client.

All labs are required to;

Prior to release of report

- Results reviewed and authorised prior to release
- Reports can be simplified when agreed by the customer

Report	• Be clear and unambiguous • Contain all information as agreed with the customer, required by the method, and
After release of report	• Report retained as a technical record • Amendments clearly identify the changed information and the reason for the change. Reference the original

This clause contains detailed requirements for reports. FSS uses report templates to ensure these requirements are met.

Queensland Government

Forensic and Scientific Services
HealthSupport Queensland

CERTIFICATE OF ANALYSIS

CLIENT:
Client Name
Client Address line 1
Client Address line 2
Suburb QLD postcode

ATTN: Contact Name

CC:
Copied Client 1
Copied Client 2

Laboratory Reference : SSP0012345
Client Order Number : client order number
Quote Number : quote number
Client Project : client project
Client Batch Reference : client batch reference
Date Received : 05-Apr-2011
Date Commenced : 06-Apr-2011
Laboratory Number/s : 11LNxxx-11LNxxx

Submitting Authority : Submitting Authority
Number of Samples : xxx
Reason for Analysis : reason
Method/s of Analysis : QIS number – Method Description
Remarks : add remarks here

Queensland Government

Forensic and Scientific Services
HealthSupport Queensland

CERTIFICATE OF ANALYSIS

CLIENT:	Client Name Client Address line 1 Client Address line 2 Suburb QLD postcode ATTN: Contact Name	Laboratory Reference Client Order Number Quote Number Client Project Client Batch Reference Date Received Date Commenced Laboratory Number/s	: SSP0012345 : client order number : quote number : client project : client batch reference : 05-Apr-2011 : 06-Apr-2011 : 11LNxxx-11LNxxx
CC:	Copied Client 1 Copied Client 2		

Submitting Authority : Submitting Authority

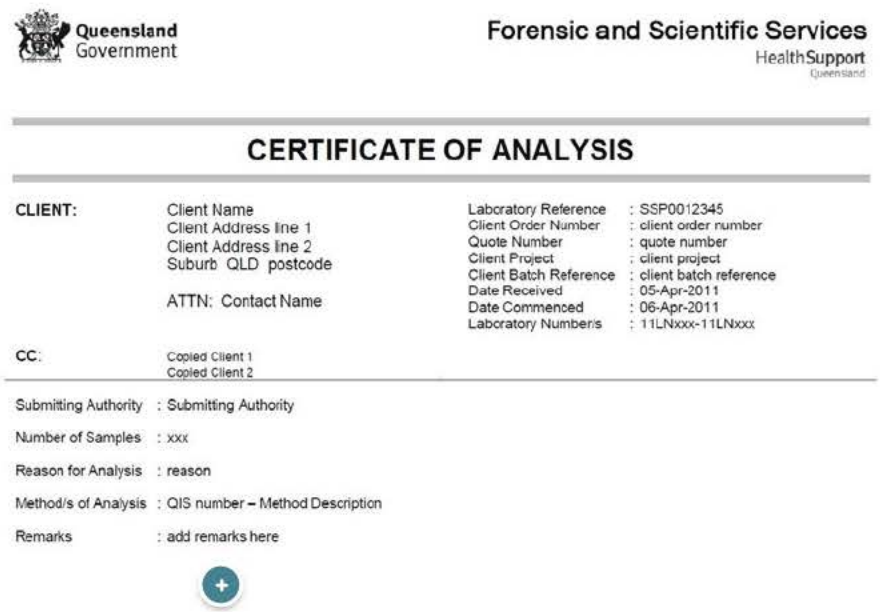
Number of Samples : xxx

Reason for Analysis : reason

Method/s of Analysis : QIS number – Method Description

Remarks : add remarks here

Title



Queensland Government

Forensic and Scientific Services
HealthSupport Queensland

CERTIFICATE OF ANALYSIS

CLIENT: Client Name
Client Address line 1
Client Address line 2
Suburb QLD postcode

ATTN: Contact Name

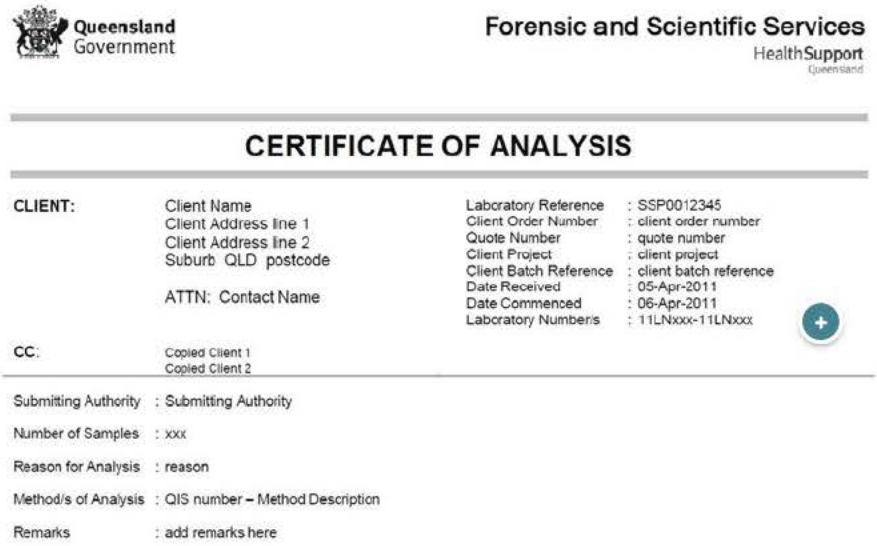
Laboratory Reference : SSP0012345
Client Order Number : client order number
Quote Number : quote number
Client Project : client project
Client Batch Reference : client batch reference
Date Received : 05-Apr-2011
Date Commenced : 06-Apr-2011
Laboratory Number/s : 11LNxxx-11LNxxx

CC: Copied Client 1
Copied Client 2

Submitting Authority : Submitting Authority
Number of Samples : xxx
Reason for Analysis : reason
Method/s of Analysis : QIS number – Method Description
Remarks : add remarks here

Results, with units of measurement

description of the item



Queensland Government

Forensic and Scientific Services
HealthSupport Queensland

CERTIFICATE OF ANALYSIS

CLIENT: Client Name
Client Address line 1
Client Address line 2
Suburb QLD postcode

ATTN: Contact Name

CC: Copied Client 1
Copied Client 2

Laboratory Reference : SSP0012345
Client Order Number : client order number
Quote Number : quote number
Client Project : client project
Client Batch Reference : client batch reference
Date Received : 05-Apr-2011
Date Commenced : 06-Apr-2011
Laboratory Number/s : 11LNxxx-11LNxxx

Submitting Authority : Submitting Authority
Number of Samples : xxx
Reason for Analysis : reason
Method/s of Analysis : QIS number – Method Description
Remarks : add remarks here

Date of performance of test

Queensland Government

Forensic and Scientific Services
HealthSupport Queensland

CERTIFICATE OF ANALYSIS

CLIENT:	Client Name Client Address line 1 Client Address line 2 Suburb QLD postcode ATTN: Contact Name	Laboratory Reference Client Order Number Quote Number Client Project Client Batch Reference Date Received Date Commenced Laboratory Number/s	: SSP0012345 : client order number : quote number : client project : client batch reference : 05-Apr-2011 : 06-Apr-2011 : 11LNxxx-11LNxxx
CC:	Copied Client 1 Copied Client 2		

Submitting Authority : Submitting Authority

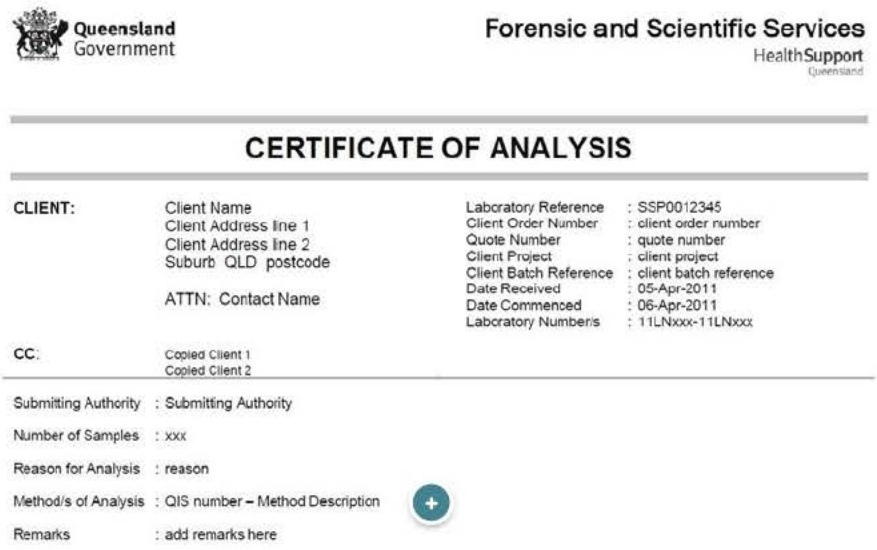
Number of Samples : xxx

Reason for Analysis : reason

Method/s of Analysis : QIS number – Method Description

Remarks : add remarks here

Date of receipt



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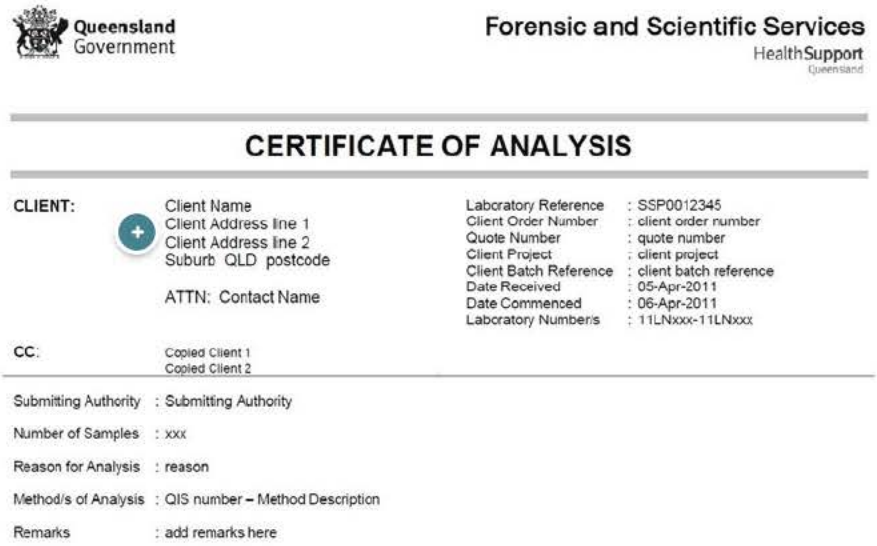
Number of Samples : xxx
Reason for Analysis : reason
Method/s of Analysis : QIS number – Method Description
Remarks : add remarks here

Identification of the method used



Queensland Government

Forensic and Scientific Services
HealthSupport Queensland

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Client Name
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Client Address line 2
Suburb QLD postcode

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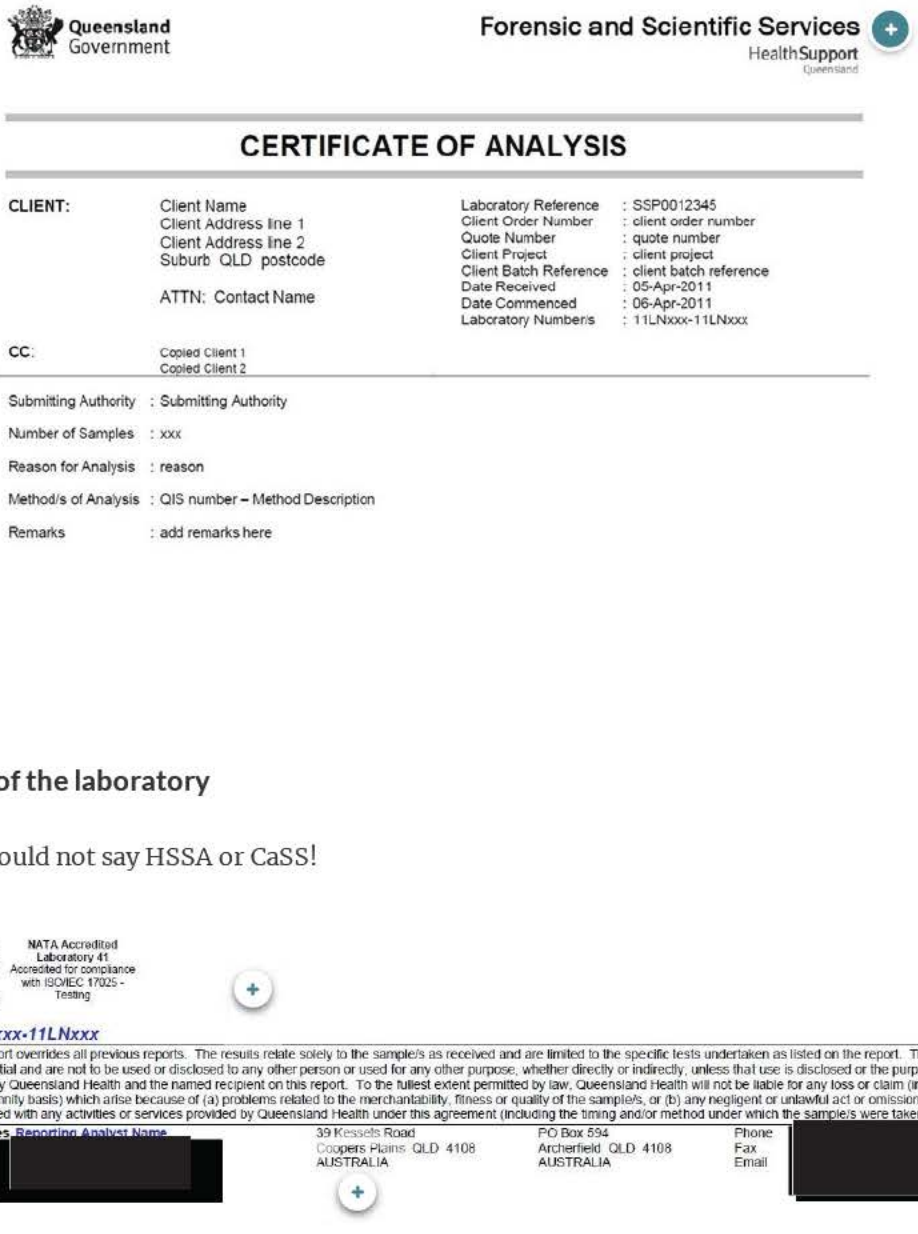
CC: Copied Client 1
Copied Client 2

Submitting Authority	: Submitting Authority
Number of Samples	: xxx
Reason for Analysis	: reason
Method/s of Analysis	: QIS number – Method Description
Remarks	: add remarks here

Name and contact information of client



Queensland Government

Forensic and Scientific Services
HealthSupport Queensland

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Submitting Authority : Submitting Authority

Number of Samples : xxx

Reason for Analysis : reason

Method/s of Analysis : QIS number – Method Description

Remarks : add remarks here

NATA Accredited Laboratory 41 Accredited for compliance with ISO/IEC 17025 - Testing

11LNxxx-11LNxxx

This report overrides all previous reports. The results relate solely to the sample/s as received and are limited to the specific tests undertaken as listed on the report. The results of this report are confidential and are not to be used or disclosed to any other person or used for any other purpose, whether directly or indirectly, unless that use is disclosed or the purpose is expressly authorised in writing by Queensland Health and the named recipient on this report. To the fullest extent permitted by law, Queensland Health will not be liable for any loss or claim (including legal costs calculated on an indemnity basis) which arise because of (a) problems related to the merchantability, fitness or quality of the sample/s, or (b) any negligent or unlawful act or omissions by Queensland Health that is connected with any activities or services provided by Queensland Health under this agreement (including the timing and/or method under which the sample/s were taken, stored or transported).

Enquiries Reporting Analyst Name
Phone [redacted]
Email

39 Kessels Road
Coopers Plains QLD 4108
AUSTRALIA

PO Box 594
Archerfield QLD 4108
AUSTRALIA

Phone
Fax
Email [redacted]

Page: 1 of 2

Name of the laboratory

This should not say HSSA or CaSS!

11LNxxx-11LNxxx

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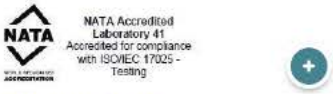
Enquiries Reporting Analyst Name	39 Kessels Road	PO Box 594	Phone
Phone [redacted]	Coopers Plains QLD 4108	Archerfield QLD 4108	Fax
Email [redacted]	AUSTRALIA	AUSTRALIA	Email [redacted]

Address of the laboratory

Address of the laboratory



11LNxxx-11LNxxx

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Email [redacted]

39 Kessels Road
Coopers Plains QLD 4108
AUSTRALIA

PO Box 594
Archerfield QLD 4108
AUSTRALIA

Phone
Fax
Email [redacted]

Statement that the results relate only to the items tested

11LNxxx-11LNxxx

Enquiries Reporting Analyst Name
Phone [redacted]
Email

39 Kessels Road
Coopers Plains QLD 4108
AUSTRALIA

PO Box 594
Archerfield QLD 4108
AUSTRALIA

Phone
Fax
Email [redacted]

Clear identification of the parts of a report and identification of the end

CERTIFICATE OF ANALYSIS

Laboratory Reference : SSP0012345
Laboratory Number/s : 11LNxxx-11LNxxx

For combined reports (delete if not required): Results in this report have been authorised for release by insert name(s)

.....
Reporting Analyst Name
Analyst's Title, Organics Laboratory
Reporting Date

CERTIFICATE OF ANALYSIS			
	Laboratory Reference	:	SSP0012345
	Laboratory Number/s	:	11LNxxx-11LNxxx

For combined reports (delete if not required): Results in this report have been authorised for release by insert name(s)

.....
Reporting Analyst Name
Analyst's Title, Organics Laboratory
Reporting Date

Date of issue of the report

CERTIFICATE OF ANALYSIS			
	Laboratory Reference	:	SSP0012345
	Laboratory Number/s	:	11LNxxx-11LNxxx

For combined reports (delete if not required): Results in this report have been authorised for release by insert name(s)

.....
Reporting Analyst Name
Analyst's Title, Organics Laboratory
Reporting Date

Identification of the person authorising the report

CONTINUE

7.9 Complaints

- This clause requires the lab to have a procedure for the resolution of complaints, and to maintain records of them.
- The procedure should cover receipt, investigation, actions, tracking and recording.
- There should be acknowledgement of receipt of the complaint and progress reporting.

- The outcome of the complaint is to be communicated to the complainant, and formal notice provided that the complaint handling has been completed.

OQI Management Procedure

QIS DOCUMENT 13965

CONTINUE

7.10 Nonconforming work

The laboratory must implement a procedure when any part of its result or activities do not comply with either ISO 17025, its own procedures or customer requirements.

Records must be kept, and corrective action implemented to address possible recurrence.

FSS handles non-conforming work using OQIs and thus there is significant overlap between this section, and section 7.9 (complaints), 8.6 (improvement) and 8.7 (corrective action).

The procedure for non-conforming work should include;

- responsibilities and authorities
- actions taken are based on risk (including halting work)

- an evaluation of significance of nonconforming work (inc. previous results)
- recall work
- notification to the customer
- responsibility for authorising resumption of work
- Records must be kept, and corrective action implemented to address possible recurrence.

Try yourself! Sort these examples of non-conforming work

Non-conforming work

equipment fail	QC fail
incorrect result	use of expired reagents

Other

training need

change to test method

chemicals stored incorrectly

CONTINUE

7.11 Control of data and information management

Control of data and information is a critical component for laboratories in order for them to perform their activities.

- The lab needs to ensure that the LIMS used for the collection, processing recording, reporting, storing and/or retrieving data is validated for functionality. This includes the proper function of interfaces.
- Any changes made to software configuration or modifications to commercial software must be authorised, documented and validated prior to its introduction.
- The LIMS shall be protected from use, safeguarded against tampering, and be maintained to ensure the integrity of the data.
- Finally, calculations and data transfers checked.

Let's Recap!

Identify the relevant clause of ISO 17025 in relation to a laboratory

7.1 Review of requests, tenders and contracts	Inform the customer when the method requested is inappropriate or out of date
7.2 Selection, verification and validation of methods	Method development to be planned, assigned to competent personnel with adequate resources
7.4 Handling of test or calibration items	Procedure for transportation, handling, storage and disposal of test item

	of test item
7.8 Reporting of results	Clear identification of changes made when a report is changed, amended or re-issued
7.6 Evaluation of measurement uncertainty	evaluate measurement uncertainty
7.9 Complaints	acknowledge receipt of complaints and provide complainant with progress reports
7.11 Control of data and information management	check calculations and data transfers in a systematic manner

SUBMIT

In the next lesson, you'll explore ISO 17025 - Section 8

Lesson 6 of 7

Standard Details: Section 8

Section 8: Management System Requirements

8.1 Options

Option A or Option B

This clause states that the laboratory must have a management system that is capable of supporting and demonstrating commitment to the requirements. This can be achieved through

implementing a management system in accordance with Option A or B.

Option A (17025)

Option A uses the requirements listed in the rest of clause 8 (8.2–8.9) to demonstrate a management system capable of supporting the technical requirements of ISO 17025.

Option B (9001)

Option B can be used by laboratories who are certified to ISO 9001, using their ISO 9001 management system as a basis for conformity with section 8 of ISO 17025, and thus are exempted from the requirements in this section.

Because not all laboratories in FSS are certified to ISO 9001, FSS has chosen Option A.

CONTINUE

8.2 Management system documentation

In this clause, the standard specifies the overarching requirement for management system documentation.

Laboratories are required to link to the management system all documentation, processes, systems, and records related to the implementation and maintenance of ISO 17025.

Laboratories must:

- Implement policies and objectives that ensure competence, impartiality and consistent operation of the lab
- Ensure staff throughout the organisation uphold the policies and objectives
- show evidence of continually improving the effectiveness of the management system
- Give all staff access to the applicable parts of the management system

CONTINUE

8.3 Control of management system documents

The requirements around document control are captured in the document cycle below;


Create draft document
1
Submit for review
2
Approve
3
Publish
4
Review
5

The lab is required to control documents that it needs to perform its service.

These documents must be uniquely identified (e.g. QIS number).

The content of the document must be reviewed for adequacy prior to issue (this can be done as part of the next step if required)

Documents must be approved prior to issue

Relevant versions of the document must be available at points of use.

Hard copies must be tracked. Use of obsolete documents must be prevented. If retained, they should be identified as archived etc (.e.g. automatic watermark on QIS documents)

Documents must be periodically reviewed and updated as necessary.

Changes and the current revision status of the document must be identified (e.g. the amendment history table)

CONTINUE

8.4 Control of records

The lab is required to establish and retain legible records to demonstrate fulfilment of ISO 17025. This includes;

- Identification
- Storage
- Protection
- Back-up
- Archiving
- Retreival
- Applying retention and disposal timeframes

Records must be:

- [ ] Legible
- [ ] Retrievable
- [ ] Kept in a suitable environment
- [ ] Backed up
- [ ] Managed by the IT department

SUBMIT

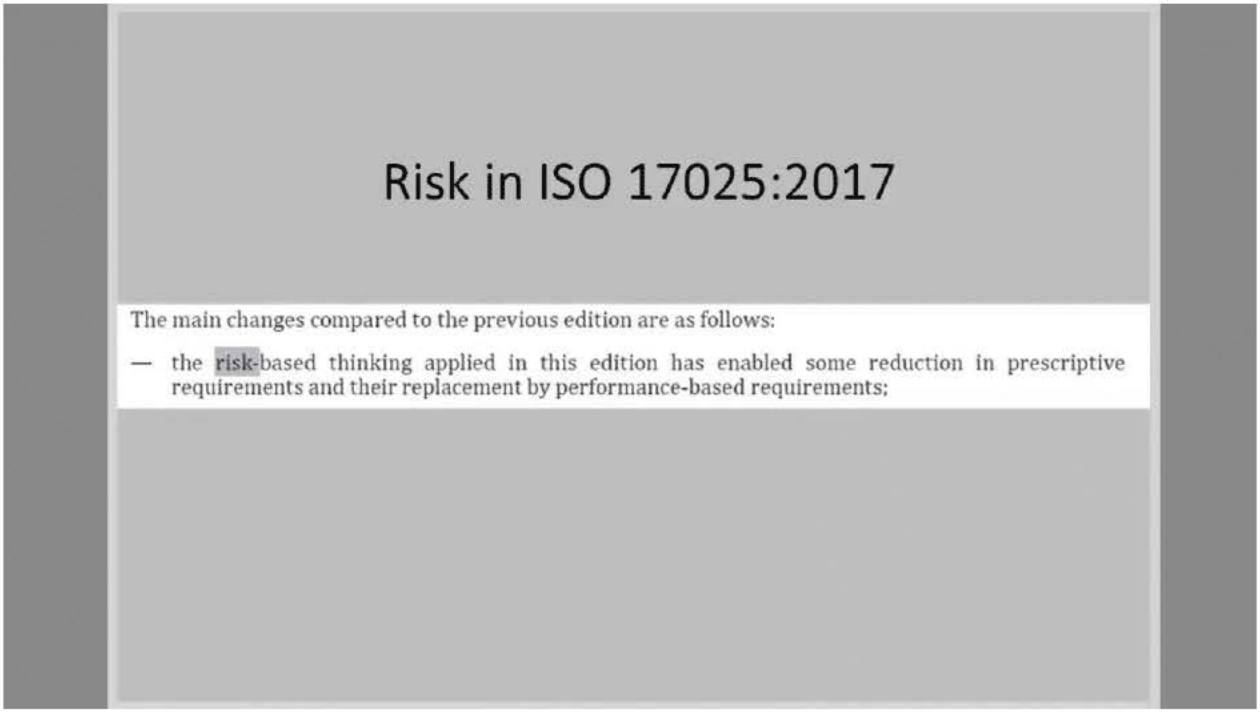
CONTINUE

8.5 Actions to address risks and opportunities

This clause requires labs to consider, plan, evaluate and take action to address risks and opportunities.

Laboratories must;

- Identify risks and opportunities associated with the lab activities
- Plan what actions it will take to address the identified risks and opportunities
- Take action, that is proportional (to the potential impact on the validity of results)
- Assess the effectiveness of the action taken



Forensic Foundations. 2020. *Forensic Science, ISO17025 & Risk Management* [Video]. YouTube. https://www.youtube.com/watch?v=aFDWkGOwrTw

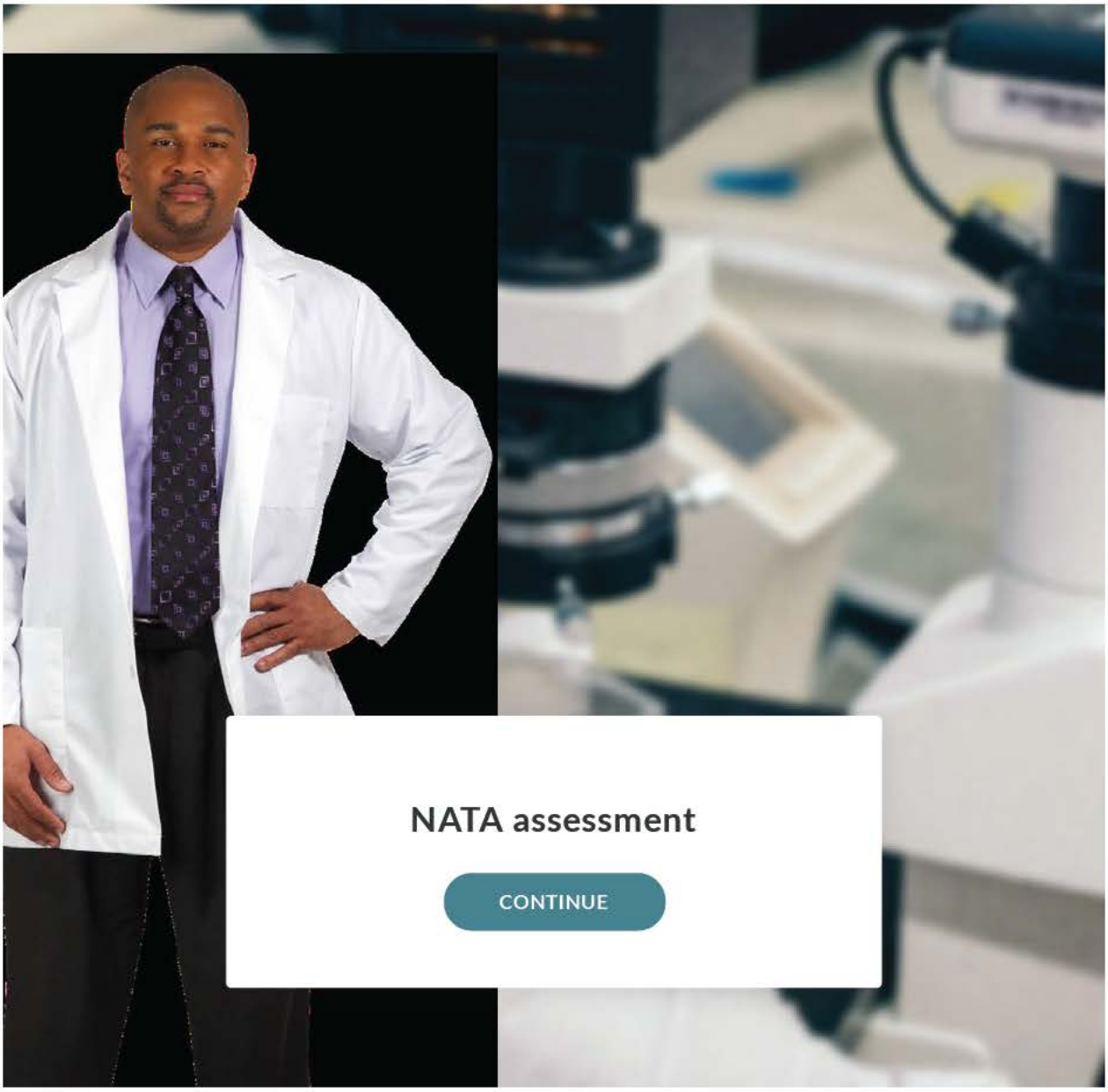
CONTINUE

8.6 Improvement

The laboratory is required to:

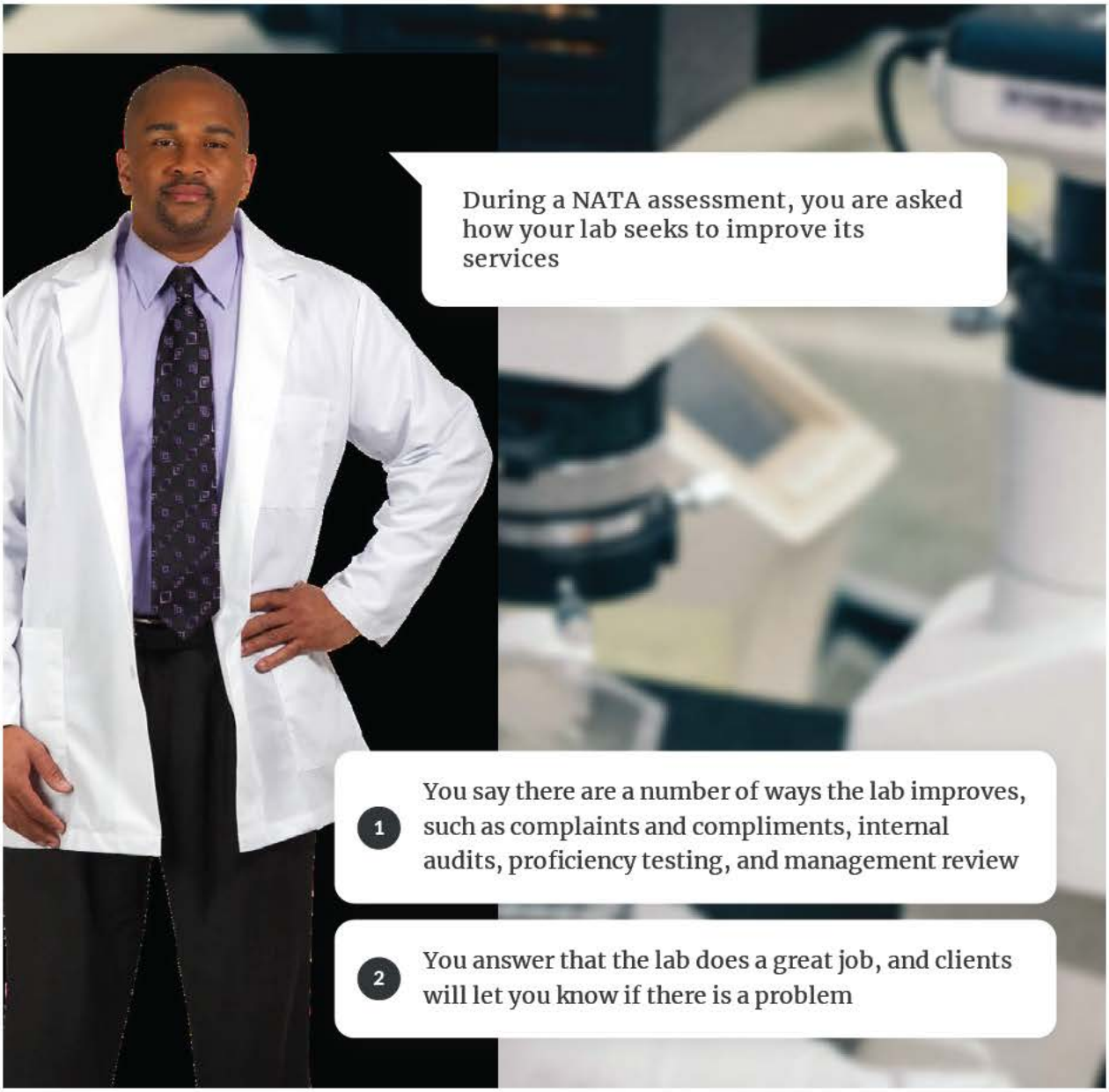
- Identify and select opportunities for improvement and implement necessary actions

- Seek feedback (positive and negative) from customers, and use it to improve its service



Scene 1 Slide 1

Continue → Next Slide



Scene 1 Slide 2

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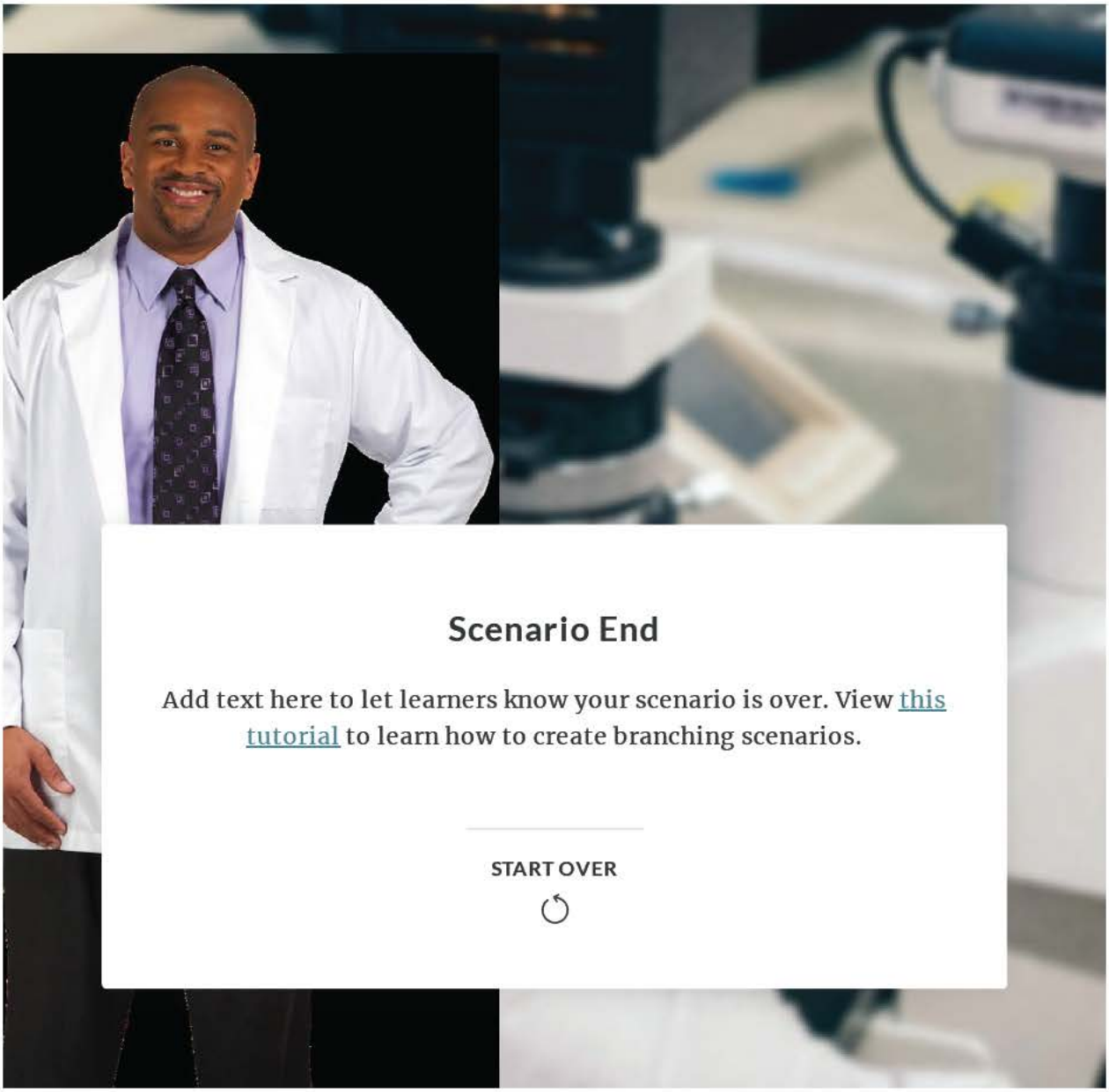
1 → End of Scenario

Scene 1 Slide 3

0 → Next Slide

1 → Scene 1 Slide 1



Scene 1 Slide 4

Continue → End of Scenario

CONTINUE

8.7 Corrective actions

This clause requires the lab to;

- React to a nonconformity, take action to control and correct it, and address the consequences (e.g. recall results if incorrect)
- Implement action to prevent recurrence of the non-conformity
- Review the effectiveness of the action taken
- Update any risks or opportunities accordingly
- Retain records of the nature of the non-conformance, the action taken, and the results of action

FSS uses the OQI module of QIS to manage its corrective actions

CONTINUE

8.8 Internal audits

Flip the cards to learn more!

Internal audit schedule	ISO 17025 requires that laboratories - establish an internal audit schedule - perform internal audits with defined scope and criteria, at pre-planned

1 of 3

Purpose of auditing	The purpose of internal audits is to evaluate if the management system complies with ISO 17025, as well as the requirements of the laboratory.

2 of 3

Risk based approach

When maintaining the program and planning individual audits, laboratories should take a risk-based approach, and consider any changes affecting the laboratory, the

3 of 3

To find out more about internal auditing (or to become one!) take a look at the FSS internal auditor training course

AUDITOR TRAINING

CONTINUE

8.9 Management Review

The organisation must review its management system at planned intervals to ensure continuing stability, adequacy and effectiveness.

Inputs	• corrective actions • assessments by external bodies (NATA) • customer feedback
Outputs	Decisions and actions regarding • the effectiveness of the management system and its processes • any improvements

CONTINUE

To complete your training, continue through to the Knowledge Check Quiz.

Lesson 7 of 7

Knowledge check quiz

To ensure your understanding of the training material, you are required to complete this quiz with a passing score of 80%.

Question

01/10

A management system that conforms to ISO/IEC 17025:2017 includes consideration of risk assessment

- ◯ True
- ◯ False

Question

02/10

Which two following feedback mechanisms are required in 17025:2017:

- [ ] Publish all feedback on the website.
- [ ] Record all complaints
- [ ] Analyse all feedback
- [ ] Ignore all feedback

Question

03/10

What is the purpose of ISO/IEC 17025:2017?

- It is to allow laboratories to enter foreign markets
- It is to provide the tools that allow laboratories to produce consistent, technically valid results.
- It is to force laboratories to use quality systems

Question

04/10

What is the definition of the term “Impartiality”?

- ◯ Absence of partiality
- ◯ Lack of conflict of interest
- ◯ Presence of objectivity
- ◯ freedom from bias”, “lack of prejudice”, “neutrality”

Question

05/10

The concept metrological traceability in 17025:2017 applies to:

- ○ calibration laboratories only
- ○ only physical measurement devices
- ○ only measurement devices and certified reference materials and standards
- ○ all equipment which contributes to the overall uncertainty of the measurement result.

Question

06/10

When receiving a request for new work, the laboratory, according to 17025:2017, shall do what three things:

- [ ] Determine its capability in doing the work.
- [ ] Determine if it has the resources to do the work.
- [ ] Confirm the method is fit for the customers purpose.
- [ ] Collect the clients details for billing purposes

Question

07/10

Documents and records acquired or created during testing and calibration work:

- ◯ Are the property of the client of the lab.
- ◯ Are to be retained for future reference by the accreditation body assessors.
- ◯ Are to be sent to the accreditation body
- ◯ Are to enable the repetition of the activity as close as possible to the original

Question

08/10

Internal audits are conducted to determine:

- The conformance of laboratory operations to its own system and ISO 17025
- The financial stability of the laboratory
- The best suppliers of reference materials
- The conformance of laboratory operations with ISO 9001

Question

09/10

The following are two options for a lab to implement a Management System:

Option B	Accreditation to section 8 of ISO 17025
Option A	Separate certification to ISO 9001

Question

10/10

A lab must meet which three of the following requirements to demonstrate conformance to 17025:2017:

- [ ] Demonstrate the consistent achievement of the requirements of 17025:2017 and assuring the quality of the laboratory results.
- [ ] Meeting the requirements of Clauses 4 to 7 of 17025:2017.
- [ ] Implement a management system in accordance with Options A or B of 17025:2017.
- [ ] Implement strategic and operational plans

Last Name	First Name	RCC Grade Symbol <Selectbox Weight:100>
Cover	Leonie	Recognition of Current Competency
Davis	Sean	Recognition of Attendance
Hardman	Andrew	Recognition of Current Competency
Granato	Samantha	Recognition of Current Competency
Baptista	Daniel	Recognition of Competent to Train
Huang	Bixing	Recognition of Current Competency
Adamson	Angela	Recognition of Current Competency
Yang	Xiaohong	Recognition of Current Competency
Lancaster	Kerry-Anne	Recognition of Current Competency
Finger	Mitchell	Recognition of Current Competency
Heaphy	Emily	Recognition of Current Competency
Darmanin	Alanna	Recognition of Current Competency
Yates	Hans	Recognition of Current Competency
Staples	Megan	Recognition of Current Competency
Jennison	Amy	Recognition of Current Competency
Tan	Benjamin	Recognition of Current Competency
du Plessis	Martha	Recognition of Current Competency
Treeby	Ashley	Recognition of Current Competency
Ariotti	Lawrence	Recognition of Current Competency
Jancic	Vesna	Recognition of Current Competency
Neil	Michelle	Recognition of Current Competency
Scott	Kirsten	Recognition of Current Competency
Le	Kerri	Recognition of Current Competency
Lim	Mckenzie	Recognition of Current Competency
Farrelly	Lisa	Recognition of Current Competency
Liu	Heping	Recognition of Current Competency
Harrison	Elizabeth	Recognition of Current Competency
Edser	Annette	Recognition of Current Competency
Pass	David	Recognition of Current Competency
Melksham	Kevin	Recognition of Current Competency
Komarova	Tatiana	Recognition of Current Competency
Herse	Jeffrey	Recognition of Current Competency
Hume	Vicki	Recognition of Current Competency
Tsai	Henghang	Recognition of Current Competency
CARTER	James	Recognition of Current Competency
Morgan	Rebecca	Recognition of Current Competency
Pillai	Mathew	Recognition of Attendance
Carter	Stephen	Recognition of Attendance
Swann	Lorinda	Recognition of Current Competency
Stephenson	Mark	Recognition of Attendance
Hicks	Vicki	Recognition of Current Competency
Patel	Renu	Recognition of Attendance
Gierach	Elizabeth	Recognition of Current Competency
Micalizzi	Gino	Recognition of Current Competency
Taylor	Carmel	Recognition of Current Competency
Turner	Scott	Recognition of Current Competency
Nguyen	Tuyet	Recognition of Current Competency
Carswell	Stewart	Recognition of Current Competency
Lind	Bronwyn	Recognition of Current Competency

Bayliss	Joanne	Recognition of Current Competency
Clausen	Pete	Recognition of Current Competency
Heron	Brett	Recognition of Current Competency

Queensland Health
Forensic and Scientific Services

Procedure for authorising staff to release results for NATA accredited tests

1 Purpose

The purpose of this procedure is to describe the procedure at Forensic and Scientific Service (FSS) for authorising staff to release results for NATA accredited tests.

Additional requirements exist in the following areas;

- Public Health Microbiology, detailed in QIS doc 29306
- DNA Analysis, detailed in QIS doc 17119 and 28182

Authority to release results for non-accredited tests shall be contained in separate training modules

2 Scope

This procedure shall apply all Forensic and Scientific Services staff releasing results for NATA accredited tests, except those reporting reference materials in Forensic Toxicology. As FSS is a Certifying Authority under the National Measurement Act, it is required to maintain NATA approved signatories in the field of Reference Material Production.

For DNA Analysis staff this procedure will relate to reporting staff and staff that routinely write Intel reports. It will not apply to DNA Analysis electronic EXH/EXR/LNK lines as there is an agreement with Queensland Police Service (QPS) to provide a result in simplified format (as per ISO17025 section 7.8.1.3)

3 Definitions

Nil

4 Background

Traditionally, NATA has granted formal approval to staff to authorise test reports or certificates for work covered by the facility's scope of accreditation. However, both ISO/IEC17025 and ISO 15189 include the requirement for facility management to ensure the competence of staff who perform specific tasks, including the authorisation of test reports or certificates. Given this, NATA decided that it no longer approves signatories, and the responsibility for authorising staff to release results has shifted to the facility.

5 Actions

5.1 Authority to release results

1. Staff will be authorised to release results for NATA accredited tests once they have successfully completed the following;
   a. the specific training module, or recognition of current competence (RCC) for that test/method
   b. the training 'Release of results' in iLearn

For Organic Chemistry, levels of competency reflect reporting responsibilities, and are assigned on an individual method basis.

2. Training is only required to be completed once and is not required to be completed by staff who are releasing results as at 01/04/2013. 'Release of results' training is assessed by the FSS Quality Manager. Specific training modules for the test/method are assessed by the laboratory.

3. The QIS PD record 'competency' tab and iLearn will be used to record the completion of training. Where applicable, hard copy training modules will be filed in the staff members green training folder.

4. Authority to release results will be included in the relevant Capability Development Program (CDP) within each laboratory, as they are developed.

5. Upon successful completion of the training listed in 5.1, the relevant team leader will arrange for the Reporting Analyst Form to be completed (31927) if required, and forward the form to CISSU for actioning.

5.2 Review of authority to release results for NATA accredited tests

The on-going competency of staff releasing results shall be subject to at least yearly review. Review may be through any of the following mechanisms;

- the CSP process (performance and development plan) with records being kept in hard copy by the relevant line manager
- peer review
- participation in collaborative trials
- expiration of competencies

6 Records

QIS2 PD Module
Completed Training modules in green training folders
iLearn

7 Associated Documentation

Release of results' in iLearn

8 References

1. AS ISO/IEC 17025 General Requirements for the competence of testing and calibration laboratories
2. AS ISO 15189 Medical laboratories – Particular requirements for quality and competence

9 Amendment History

Version	Date	Updated by	Amendments
1-15	Various	H Gregg	See superseded versions
16	Nov 2019	H Gregg	Added section for Organic Chemistry to 5.1.1
17	Mar 2021	H Gregg	Updated training module 30689 to iLearn release of results training

(FSS) Release of results - Quality

CG

Table of Contents

01. Training

Training content is to be completed prior to commencing Knowledge.

Training required:

- Associated Documentation for reading

Associated Documentation
Web Page

02. Evidence of Experience

1. Open and complete the Evidence of experience to provide evidence of your qualifications and experience. Save the file to your desktop (or H drive).
2. Upload your saved file here

Evidence: Submitted
Web Page

All conditions must be met
Submits to dropbox folder: **Evidence of Experience**

03. Knowledge

1. Open and complete the Written Questions to demonstrate understanding of underpinning knowledge.
2. Once you are satisfied with your responses, save the file to your desktop (or H drive).
3. Upload your saved Written Questions file here

Once your submission has been evaluated, you may review feedback here

Knowledge: Not Yet Evaluated
Web Page

All conditions must be met
Submits to dropbox folder: **Knowledge**
Has not received a grade for the grade item: **Knowledge**

Knowledge: Evaluated as In Progress
Web Page

All conditions must be met
Receives **equal to In Progress** on grade item: **Knowledge**
Receives **not equal to Competent** on grade item: **Knowledge**

Knowledge: Evaluated as Competent
Web Page

All conditions must be met
Receives **equal to Competent** on grade item: **Knowledge**

04. Authorisation to Perform Work

All conditions must be met

Receives **between Competent and Recognition of Current Competency** on grade item:

Authorisation to Perform Work

The evidence of your underpinning knowledge, and/or necessary characteristics under the purpose and scope of this training module has been acknowledged and authorised.

Review your competency and overall feedback and comments here

Optional: Training and Assessment Feedback

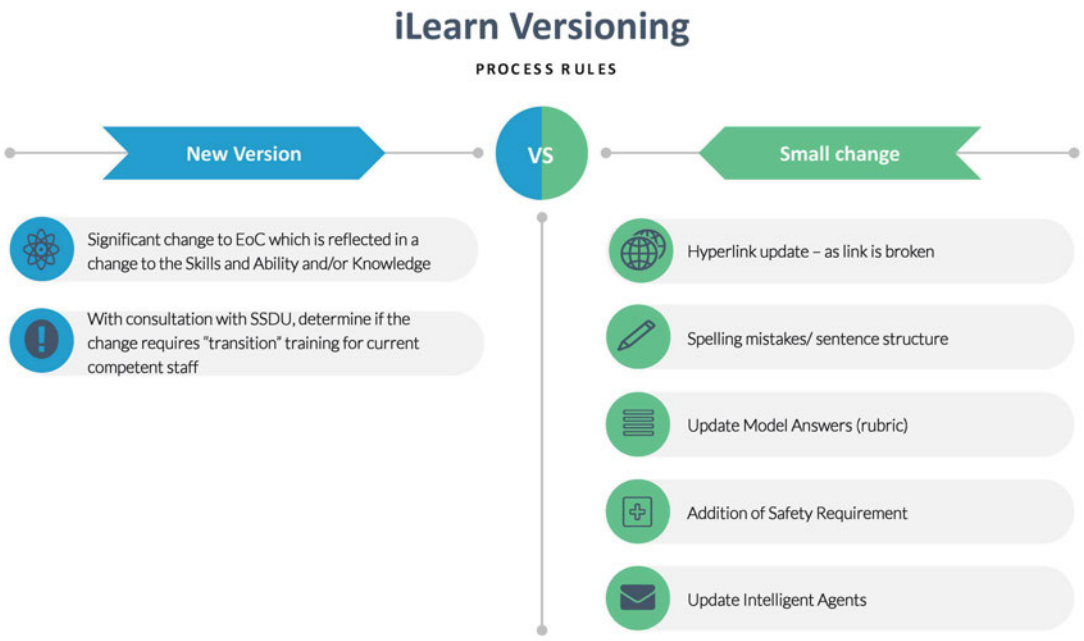
If you do not agree that your trainers feedback is a true and accurate depiction of events, or you have any feedback surrounding this training module, please advise here.

Note - all Competent to Train Trainers of this Training Module, your Training Coordinator and Line Manager can view your feedback.

Edits and Updates

To request any edits to this competency, please update the XYZT file (v001 from approved "Plan" submission) with required changes (please either track changes or highlight changes to ensure no changes are missed) and submit here

Please review the below infographic to understand if your change may require a version update and the requirement for transitional training for current competent staff.



Plan, Build, Test and Approve

View the Process Map: Transition of paper-based XYZ CBTA Training Modules to iLearn to support your understanding of process steps and requirements.

Complete **01. Plan** then as each step is completed, more modules and instructions will open up for completion. SSDU will continue to update the Training Spreadsheet to ensure you are kept up-to-date with progress.

01. Plan

01. Plan

1. Open the XYZT file and transition current QISTM to this new template
2. Gain approval from Line Manager
3. Submit completed XYZT here
    - Keep XYZT as a .doc (Microsoft Word document) only

SSDU will complete build and preliminary testing based on the submitted XYZT. Once complete, SSDU will update TSp notifying that Gate 1 Testing is now required.

Drag and drop files here to create and update topics

02. Build

02. Build (SSDU)

2x SSDU staff to complete

- UAT - Trainee (SSDU)
- UAT - Trainer (SSDU)

and submit here

Drag and drop files here to create and update topics

03. Test: Gate 1

03. Test: Gate 1

1. Open the UAT - Trainee (SME) file and complete testing as per file
2. Submit completed UAT here

SSDU will update/ edit course as required based on this feedback. Once complete, SSDU will update TSp notifying that Gate 2 Testing is now required.

Drag and drop files here to create and update topics

04. Test: Gate 2

04. Test: Gate 2 (SME and 2x CTT)

2x CTT Trainer

1. Open the UAT - Trainee (CTT) file and complete testing as per file
2. Submit completed UAT here

SME

1. Open the UAT - Trainer (SME) file and complete testing as per file (you will be assessing the CTT Trainers "trainee" submissions)
2. Submit completed UAT **here**

SSDU will update/ edit course as required based on this feedback. Once complete, SSDU will update TSp notifying that Approval is now required.

Drag and drop files here to create and update topics

05. Approve

05. Approve (Line Manager)

1. Line Manager to complete CCAC form (you are only required to fill in "Statement of Acceptance by Content Owner" and SSDU will fill in the rest) and submit **here**
2. Line Manager to complete Facilitator Access form for each CTT staff member of this competency and submit **here**

Drag and drop files here to create and update topics

HealthSupport
Queensland
Forensic and Scientific Services

Recording of Evidence

This is only required to be completed by Organic Chemistry, Inorganic Chemistry, Public Health Microbiology (Food and Water), RNSU

Area of experience	Years of experience in area	Qualification

HealthSupport
Queensland
Forensic and Scientific Services

Release of Results

Knowledge Written Questions

Question 1 (KPC 1.1)
List five items that are required to be included in the content of a report

Question 2 (KPC 1.2)
Are you allowed to include expressions of opinion in your reports?

Question 3 (KPC 1.3)
What are the NATA requirements for including subcontracted results in your report?

Question 4 (KPC 1.4)
How should results in reports be expressed?

Question 5 (KPC 1.5)
What does the NATA endorsement consist of, and what is the relevant mandatory statement for your area?

Question 6 (KPC 1.5)
If you are issuing a NATA endorsed report, and some of the tests in the report are not accredited, what should you do?

Question 7 (KPC 1.6)
What are the requirements for issuing interim reports

Question 8 (KPC 1.7)
What are the requirements when issuing an amended report?

Question 9 (KPC 1.8)
What are some of the common factors that can contribute to uncertainty of measurement?

Question 10 (KPC 1.8)
How do you apply measurement uncertainty in your area?

Question 11 (KPC 1.9)
How would you determine if equipment in your area is calibrated?

Question 12 (KPC 2.1)
What are the QIS number(s) for the offline reports for your area?

Question 13 (KPC 2.2)
What changes can be made to the header and footer of offline reports?

Last Name	First Name	Date of Authorisation to Perform Work
Cover	Leonie	28/04/2011
Petry	Stephan	24/09/2020
Cross	Matthew	25/09/2020
Buchanan	Glen	2/06/2000
Goldthorpe	Nigel	25/06/2019
Watson	Drew	25/09/2015
Sharp	Lesley	26/11/2018
Craig	Scott	20/11/2015
Chan	Soon-Chee	27/10/2011
Smart	Daniel	20/4/2022
Yang	Xiaohong	13/08/2019
Lancaster	Kerry-Anne	20/05/2020
Finger	Mitchell	21/10/2015
Huang	Daphne	4/1/2022
Yates	Hans	21/05/2014
Lloyd	Allison	13/03/2018
Staples	Megan	8/09/2015
Sultana	Inga-Marie	20/10/2015
Jennison	Amy	29/10/2015
Tan	Benjamin	27/10/2011
du Plessis	Martha	27/10/2011
Hnatko	Darina	9/01/2012
Ariotti	Lawrence	24/02/2017
Hynard	Nikole	1/05/2009
Fuenzalida	Tommy	20/05/2020
McMahon	Jamie	13/10/2015
Nicolosi	Cara	28/9/2022
Lim	Mckenzie	27/10/2011
Kelly	Cassandra	13/11/2019
Liu	Heping	19/01/2012
Harrison	Elizabeth	30/09/2020
Pass	David	27/10/2011
Chauhan	Pushpendra	25/09/2015
Burtonclay	Peter	21/10/2015
Melksham	Kevin	4/12/2015
Schulze	Aaron	2/08/2019
Anuj	Shalona	30/07/2015
Komarova	Tatiana	14/09/2020
Nguyen	Mai	27/10/2011
Heading	Ellena	13/11/2018
Dwyer	Tegan	1/06/2020
Graham	Rikki	20/11/2015
Hall-Mendelin	Sonja	13/10/2015
Everson	Naomi	27/11/2018
Thompson	Amanda	22/11/2013
Bergeon	Julie	19/12/2011
Hewitson	Glen	21/10/2015
Tronoff	Ashley	3/09/2012
Griffiths	Andrew	29/10/2013

CARTER	James	22/05/2014
Scott	Dominique	30/8/2022
Morgan	Rebecca	18/03/2015
Nurthen	Thomas	1/6/2014
Lange	Corinna	21/05/2014
Moore	Peter	5/11/2015
Farrell	Madeleine	18/09/2018
Williams	Ishvi	15/7/2022
Mullins	Sarah	25/09/2015
Chowdhury	Sadia	6/03/2015
De Jong	Amanda	27/11/2015
Pillai	Mathew	2/10/2020
James	Cassandra	28/05/2018
Nair	Neelima	4/09/2018
Medley	Peter	13/07/2018
Kistler	Carol	14/03/2019
Carter	Stephen	27/10/2011
Bouchereau de Pury	Pierre	18/2/2021
Wiggins	Matthew	10/01/2020
Holling	Neil	27/10/2011
Jones	Cassandra	3/11/2011
Nieradzik	Ludwika	12/01/2021
Swann	Lorinda	27/10/2011
Prove	Gary	27/10/2011
Reardon	Karen	28/04/2011
Smith	Helen	1/12/2015
Hicks	Vicki	28/04/2011
Arikkatt	Jaisy	7/4/2022
Patel	Renu	27/10/2011
Micalizzi	Gino	20/11/2015
Rayan-Samuel	Paran	2/3/2022
BHANDARI	Murari	12/11/2021
Kahlon	Pam	27/10/2011
Taylor	Carmel	24/02/2017
Turner	Scott	27/10/2011
Van Luenen	Bradley	30/8/2022
Pyke	Alyssa	21/10/2015
Nguyen	Tuyet	27/10/2011
Carswell	Stewart	27/10/2011
Tinggi	Ujang	27/10/2011
Lind	Bronwyn	27/10/2011
GRAHAM	Gertrude	28/04/2011
Bayliss	Joanne	28/04/2011
Heron	Brett	5/11/2013
Woolcock	Margaret	8/10/2018
Burns	Mary-Anne	20/11/2015
Wheatley	Sarah	13/10/2015
Moore	Frederick	21/10/2015

Table of Contents

01. Training Material

Training Materials:

- Video tutorials

2.7 Templates - Find blank templates for methods and SOPs
Video

3 Opportunities for quality improvement (OQIs)
Video

02. Knowledge

Complete the QIS Basics Quiz (below) and obtain minimum 80% pass to be awarded competency

QIS Basics Quiz
Quiz

Optional: Training and Assessment Feedback

If you have any feedback surrounding this training, please advise here.

Archived 01/9/2020 - Training Material

Training Materials:

- Video tutorials **or**
- Powerpoint presentation

The information in the video tutorials is the same as the powerpoint presentation.

Content updated 01/09/2020.

In use from 03/07/2020 - 01/09/2020.

Powerpoint Presentation - QIS2: Basics
PowerPoint Presentation ✓

1. Search for a Document Number
Video ✓

2. Search for documents belonging to an Org Unit
Video ✓

3. Search for documents belonging to a staff member
Video ✓

4. Search for a keyword in the document title
Video ✓

5. Combining searches
Video ✓

6. Document information tabs
Video ✓

Archived 01/09/2020 - Knowledge

Note: To complete the Written Questions, you will need to access QIS2. This can only be accessed on the Queensland Health network.

Open and complete the QIS2 Basics: Written Questions.pdf to demonstrate understanding of underpinning knowledge.

Once you are satisfied with your responses, **save the file to your desktop (or H drive).**

Upload your saved Written Questions file here

Knowledge updated to be in Quiz format 01/09/2020.

In use from 03/07/2020 - 01/09/2020.

Knowledge: Not yet Evaluated
Web Page

All conditions must be met
Submits to dropbox folder: **Knowledge: Written Questions**
Has not received a grade for the grade item: **Knowledge - Written Questions**

Knowledge: In Progress
Web Page

All conditions must be met
Receives **equal to In Progress** on grade item: **Knowledge - Written Questions**

Knowledge: Competent
Web Page

All conditions must be met
Receives **equal to Competent** on grade item: **Knowledge - Written Questions**

01. Training

Training required:

- Video tutorials

1 Sort, filter and export a QIS report ✓
Video

2 View incomplete OQIs ✓
Video

3 View documents overdue for review ✔
Video

4 View overdue audits ✔
Video

5 View completed audits ✔
Video

6 View overdue calibrations ✔
Video

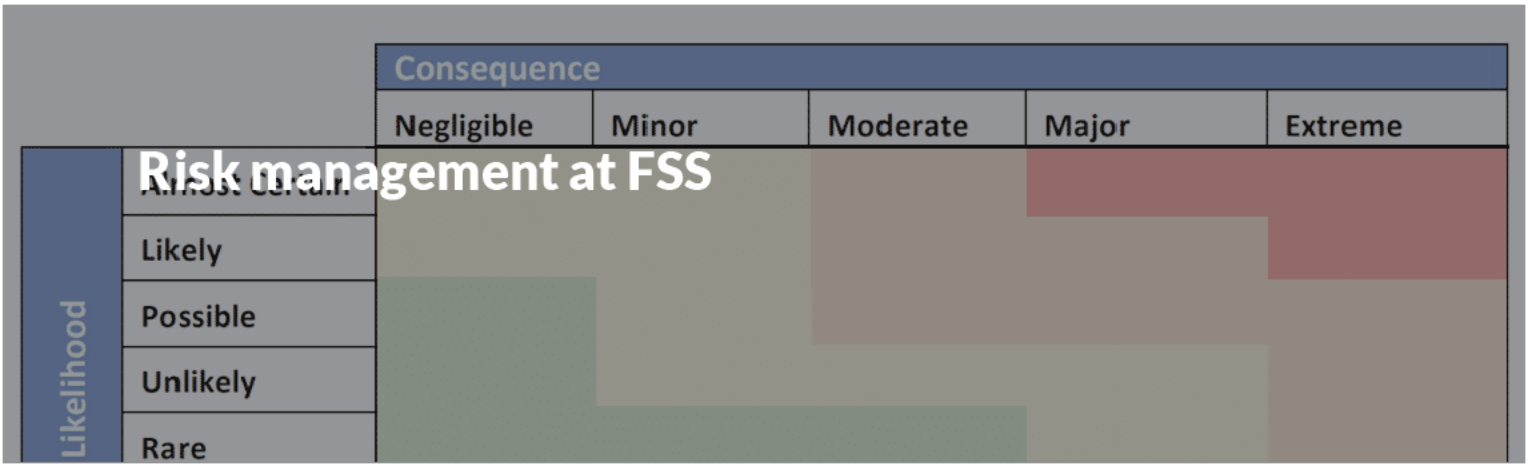
7 Find Career Success Plans past due date ✔
Video

Additional Videos

The following video(s) are not QIS reports but are additional functions that a line manager may need to know.

How to change the QIS calibration interval ✔
Video

Your equipment in QIS has a calibration interval fixed by its equipment type.
The video above shows you how to extend the interval and reduce the number of calibrations.



Welcome to the risk management section of the managers toolkit. In this section, you will learn how risk management can help you manage the risks to your work unit, as well as take advantage of some of them! You will also learn about your risk appetite, how to clearly define a risk, and how to record risks.

Let get started....

Introduction to risk management

Describing risks

Assessing risks

Recording and managing risks

Lesson 1 of 4

Introduction to risk management

What is risk management?

Risk management is an integral part of being a good manager, and an essential element of good business. Good risk management:

- improves planning processes by focusing on core business and helping to ensure continuity of service delivery.
- reduces the likelihood of potentially costly 'surprises' and assists with preparing for challenging and undesirable events and outcomes.
- contributes to improved resource allocation by targeting resources to the highest-level risks.
- improves efficiency and general performance.
- contributes to the development of a positive organisational culture, in which people and agencies understand their purpose, roles and direction.
- improves accountability, responsibility, transparency, and governance in relation to both decision-making and outcomes.
- supports decision-making, planning, policy, performance, and resource allocation.

What is risk management?

- The overall mission, goals, and objectives for risk initiatives.
- The legislative requirements require employers to ensure staff are protected from harm.
- The coordinated activities that identify and control risks in organisation.

SUBMIT

"Risk management is not about eliminating risks, but about managing them to as low a level as is reasonably practicable. In other words, making the risk tolerable."

- He en Gregg, Qua ity Manager FSS

CONTINUE

Defining appetite for risk

It is important to decide which risks you will not take, which need further treatment, and which you are willing to accept and take as is.

Defining how much risk your work unit can and will accept helps to ensure that risk is considered consistently and managed effectively at all levels. It helps allocate time and resources to activities that matter.

Risk appetite is the amount of risk your work unit will target and/or retain. It is used to help decide if a risk should be avoided, treated, or accepted as is.

A risk appetite is often identified by deciding that

- ☐ further reduction in the risk is impractical
- ☐ the cost of further reduction exceeds the improvements/benefits gained
- ☐ no treatment/control is available – in this case a business resilience plan should be considered to contain the impact

Risks may be identified through regular business practices, such as operational planning, business case development, portfolio and project management. All staff should be provided with opportunities to identify and participate in risk management processes through various forums such as meetings and staff discussions.

Risks may also be identified from an analysis of incidents, recurring issues, and findings from internal or external reviews.

CONTINUE

Lesson 2 of 4

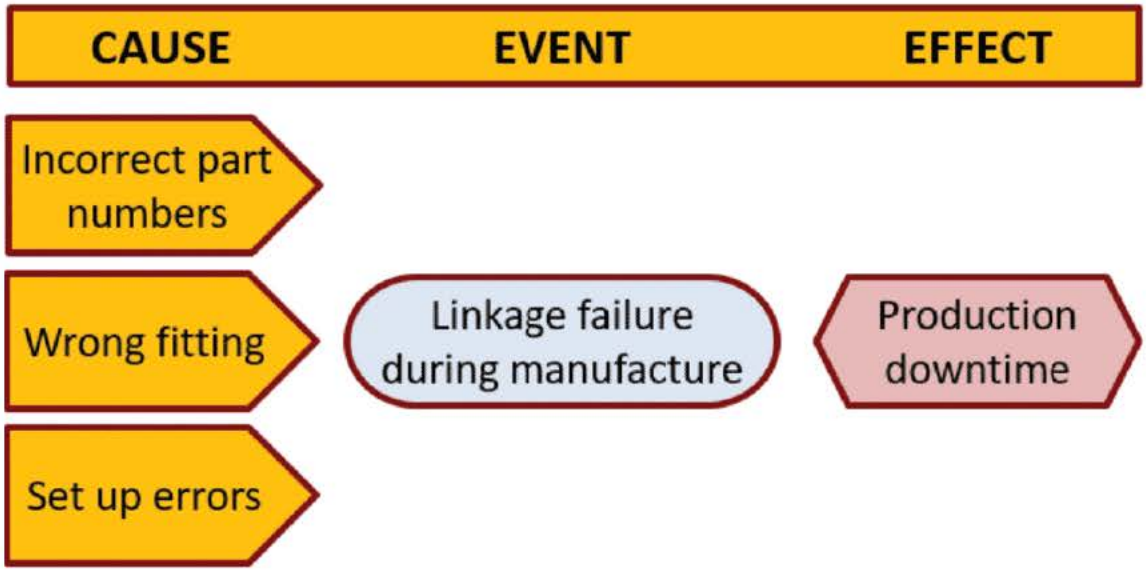
Describing risks

A poorly described risk can, at best, result in false assumptions being made about the risk and, at worst, result in wrong and ineffective actions being taken to control or treat the risk.

A good risk description will contain three elements:

CAUSE	What will cause the event to occur?

EVENT	What circumstance is being avoided (threats) or pursued (opportunities)?
EFFECT(S)	What is the effect if the event occurs?



The easiest (and best) way to describe a risk is with this simple formula;

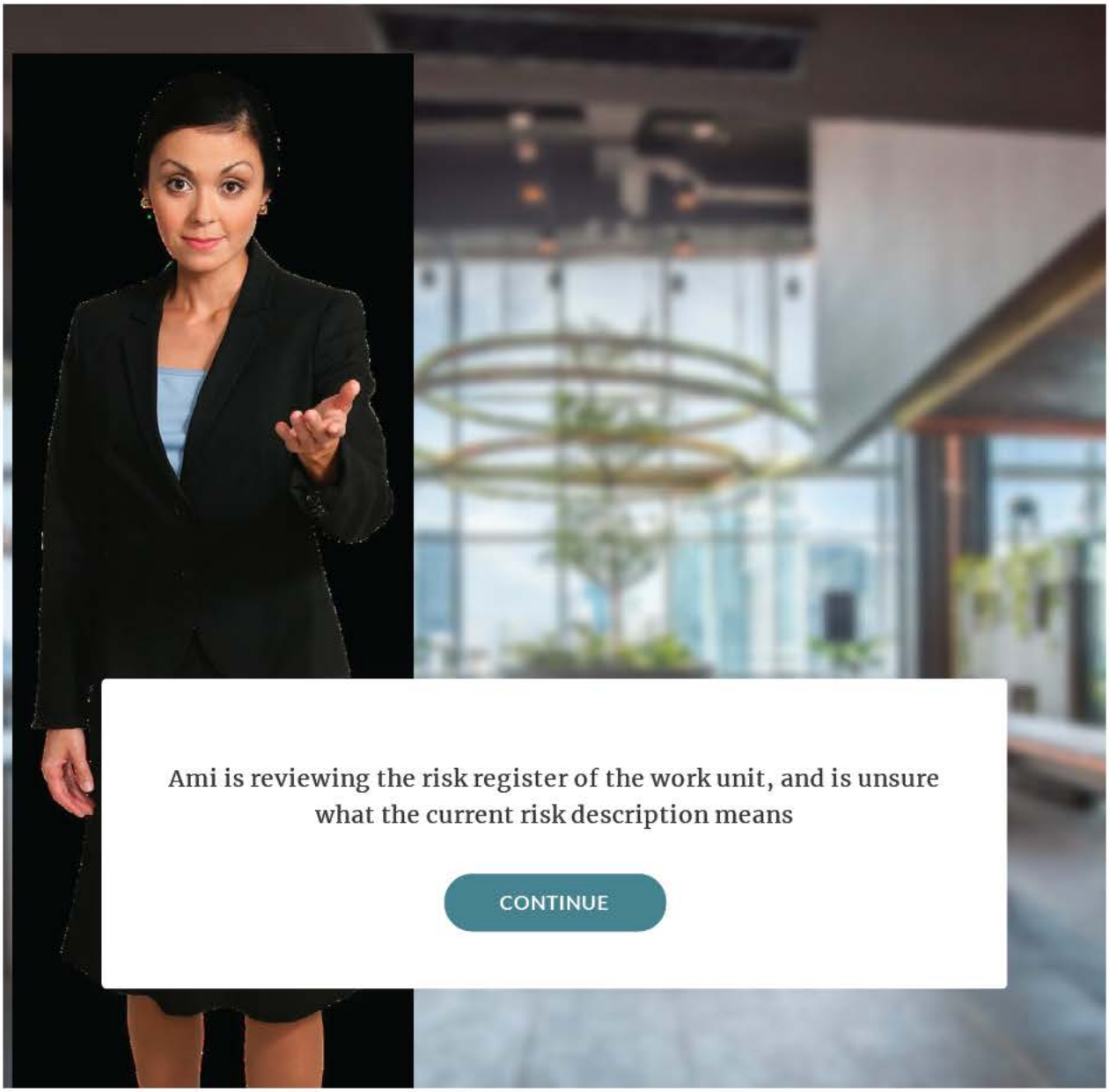
As a result of <cause>, <event> may occur, which would lead to <effect>

> ⓘ **The risk management plan should prevent the risk from happening by addressing its causes and minimise the damage if the event does occur by addressing its effects.**

A well constructed risk description is

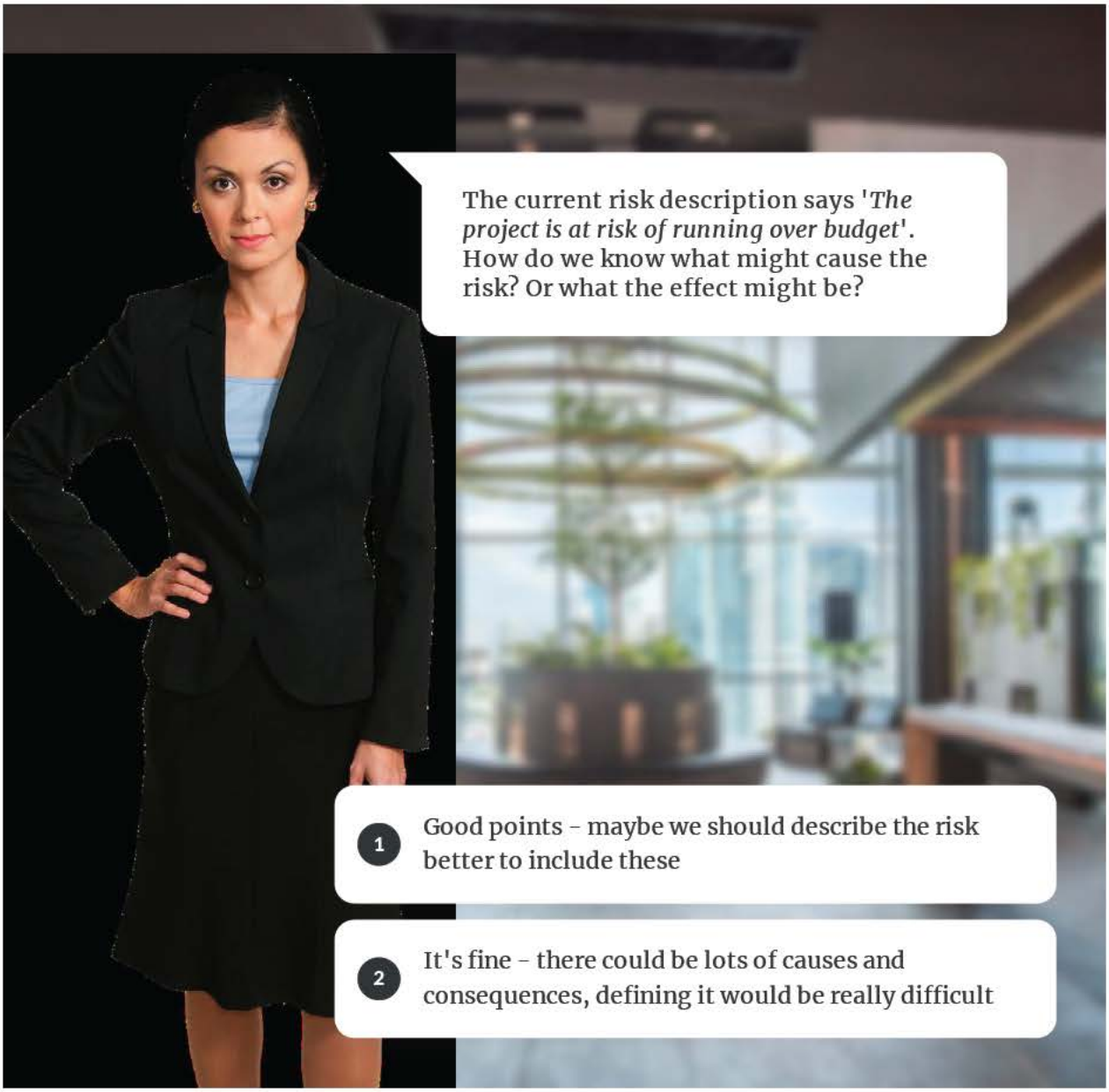
- ☐ **Clear** – it uses plain, simple English (no acronyms) which can be understood by any reader

- [ ] **Complete**—it includes the important information needed to understand the risk but excludes extraneous detail
- [ ] **Correct**—it is accurate and can be relied upon to assist with decision making
- [ ] **Concise**—include just the relevant information only.



Scene 1 Slide 1

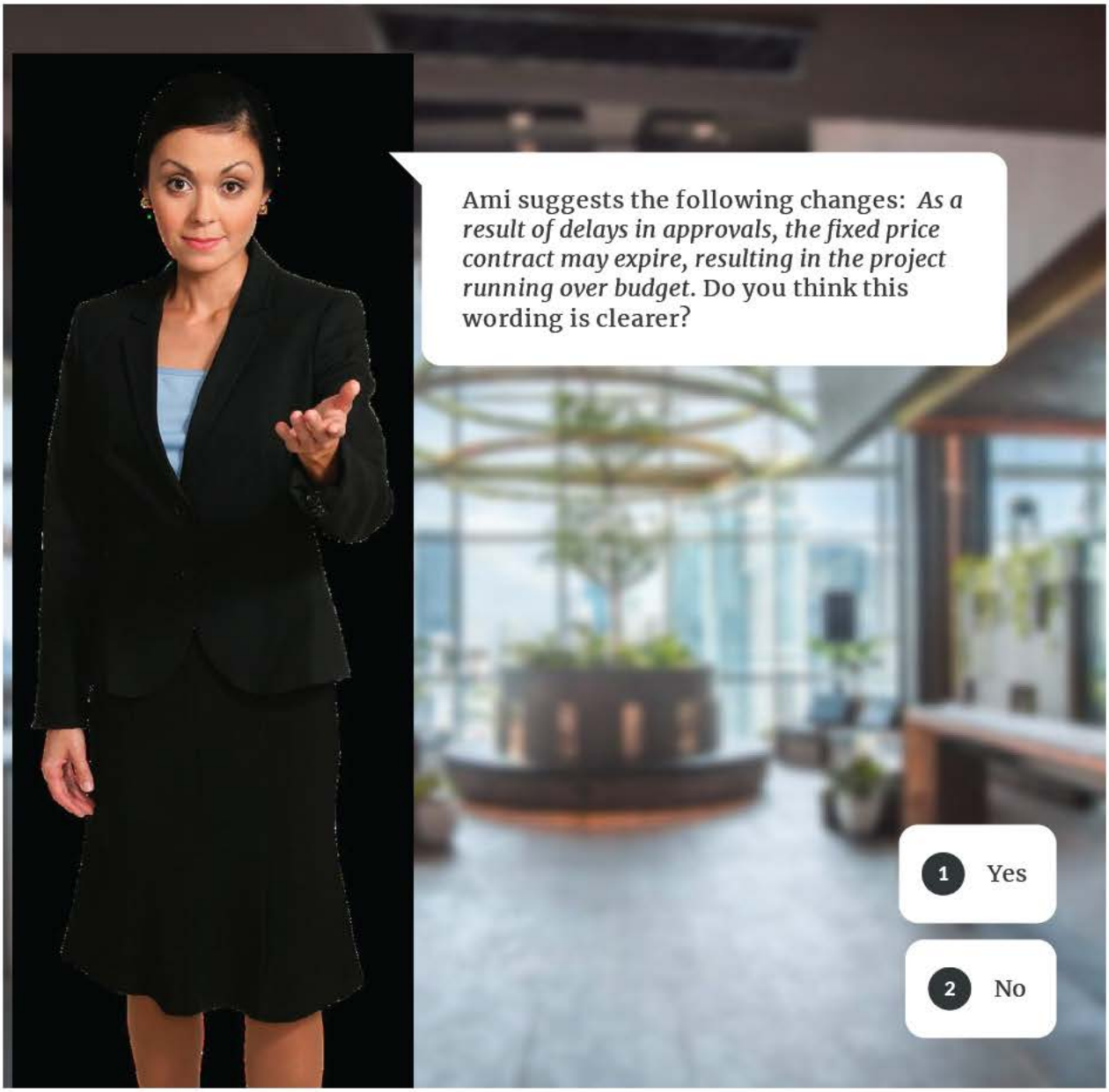
Continue → Next Slide



Scene 1 Slide 2

0 → Next Slide

1 → Next Slide



Scene 1 Slide 3

0 → End of Scenario

1 → Scene 1 Slide 1

CONTINUE

Lesson 3 of 4

Assessing risks

Good risk information can help management to understand:

- what risks might prevent the objectives being met
- what plans have been made to manage the key risks
- whether the plans to manage them are strong enough
- what needs to be monitored to know whether the risks are getting worse or better

Assess the risk

with its current controls

Determine your risk actions

based on your risk appetite.
Decide whether to tolerate the risk, treat it further, or something else (like avoid the risk by ceasing the activity)

Report risks

that currently exceed the risk appetite to the appropriate tier of management, and decide at what level it will be managed

CONTROLS

Controls are measures or actions that are currently in place to regulate or modify the risk

TREATMENTS	Treatments are planned activities to minimise the likelihood or consequence of the risk. Treatments may refer to a one-off activity (system replacement) or can become a control once it is implemented (monthly reviews). All treatments should have an
CURRENT RISK RATING	Based on the consequence and likelihood of the risk considering current controls in place prior to the implementation of treatments
PROJECTED RISK RATING	The anticipated risk remaining after the effective implementation of planned treatments. This is also know as the residual risk, or

retained risk.

CONTINUE

Rating risks

Each risk must be assessed using the departments risk analysis matrix, and give a current and projected risk rating.

1

CONSEQUENCE

First determine the consequence of your risk. There are many rows for the different types of consequences – choose the most applicable.

Guiding consequence criteria – use applicable criteria as appropriate		Negligible	Minor	Moderate	Major	Extreme
	Strategic Planning	Adverse occurrence or more significant consequences nearly realised	The consequences affect efficiency or effectiveness of some aspects of the objectives of the branch plan possibly including its projects, programs, services and people/stakeholders	The consequences affect efficiency or effectiveness of some aspects of the objectives of the divisional plan possibly including its projects, programs, services or people/stakeholders	The consequences affect efficiency or effectiveness of some aspects of the objectives of the strategic plan which are critical to the Department	The consequences affect the Department's ability to deliver on its strategic objectives and extend to whole-of-health system critical impacts
	Work Health and Safety	No injury. First aid treatment only. No time lost	Medical treatment injury. A full shift/workday has not been lost	Lost time injury or serious injury or illness without permanent impairment (as defined by *S36 Work Health & Safety Act (QLD) 2011)*	Serious injury or illness with permanent impairment (as defined by *S36 Work Health & Safety Act (QLD) 2011)*	Reportable fatality (as defined by *S35 Work Health & Safety Act (QLD) 2011)*
	Delivery of Safe Services (Clinical)	No harm. (Could express as a SAC3)	Minimal harm. First aid treatment only. (Could express as a SAC3)	Temporary harm. (Could express as a SAC2)	Permanent harm/loss of function/disability. (Could express as a SAC1)	Loss of life. (Could express as a SAC1)
	Health Service Delivery	Possible disruption to single service delivery	Disruption to service delivery with workarounds available	Disruption of a service resulting in the inability to meet agreed service KPIs	Disruption of a single service across multiple locations or multiple services in a single location	Inability to deliver a service across multiple locations or multiple services within a single location
	Business Operations	Potential or actual disruption causing manageable delays to non-critical business functions/outputs	Disruption to business functions/outputs but still within maximum acceptable outage (MAO) times. Workarounds possible through management coordination	Disruption to business functions/outputs in one area, exceeding MAO timeframes. Some effective workarounds. Rapid recovery expected	Widespread disruption to business functions/outputs exceeding MAO timeframes. Very limited effective workarounds. Possible prolonged recovery and backlog processing	Widespread and cascading failures of disruption to business functions/outputs significantly exceeding MAO. No workarounds available. Prolonged recovery. Significant backlog processing
	Financial (DoH)	Negligible impact on budget/finances for example 0 - 0.5% variation of **allocated** operating budget	Minor impact on budget/finances for example 0.5 - 2% variation of **allocated** operating budget	Moderate impact on budget/finances for example 2 – 5% variation of **allocated** operating budget. May need adjustment of Department budget	Major impact on budget/finances for example 5 – 10% variation of **allocated** operating budget. May need CBRC submission for funds	Extreme long-term impact on budget/finances for example >10% variation of **allocated** operating budget. May need emergency funding by Treasury
	Other examples:	Net cash flow impact of < $200,000 Accounting write-down of assets of < $200,000	Net cash flow impact between $200,000 - $2M Accounting write-down of assets between $200,000 - $2M	Net cash flow impact between $2M - $10M. Accounting write-down of assets or increase in Life Cycle costs between $2M - $10M	Net cash flow impact between $10M - $40M. Accounting write-down of assets or increase in Life Cycle costs between $10M - $40M Deficit of 0 - 0.5% ($7.5M in 2013-14) of Annual **Departmental** Operating budget	Net cash flow impact > $40M Accounting write down of assets of > $40M or increase in Life Cycle costs of > $40M Deficit of > 0.5% (> $7.5M in 2013-14) of Annual **Departmental** Operating budget
	Legal and Regulatory	No long term consequences. Not likely to result in claim, litigation or prosecution	No long term consequences anticipated. Potential for claim or litigation	Minimal long term consequences. Potential for investigation initiated by regulatory authority. May result in claim or litigation	May result in long term consequences and ongoing investigation by regulatory authority. Potential for serious claim, litigation or prosecution. May result in criminal conviction	May result in long term consequences. Potential for significant claim, litigation or prosecution. May result in criminal conviction that carries a penalty of imprisonment
	Project/Program Performance	Time or schedule delays are avoided	<2% time or schedule slippage	<5% time or schedule slippage	<10% time or schedule slippage	>10% time or schedule slippage
		Negligible impact on achieving objectives	Minimal short-term impact on achieving objectives	Moderate impact on achieving objectives requiring review or changed ways	Major impact on objectives requiring changes in activities and resource allocation	Objectives can not be reached
	Reputation	Isolated complaints from individuals that can be managed locally	Complaints and/or negative local media attention	Negative regional media coverage. May be noted in statewide media	Sustained negative statewide media coverage. May be noted in national media	Sustained negative national media coverage. May be noted in international media

For example: If your risk is about delays in testing due to supply chain issues, there might be consequences under business operations, financial, or reputation. Choose the most applicable.

2

LIKELIHOOD

This is used to rate how likely/how often your risk is expected to occur.

Likelihood	Description	Probability
Almost Certain	The risk/event will likely occur in most circumstances.	**>90%**
Likely	The risk/event will probably occur at least once.	**60-90%**
Possible	The risk/event could be expected to occur at some time.	**30-60%**
Unlikely	The risk/event could occur at some time but is not expected.	**5-30%**
Rare	The risk/event may occur only in exceptional circumstances.	**<5%**

3

Risk Matrix

Use your assessment consequence and likelihood to determine a current risk rating

		Consequence				
		Negligible	Minor	Moderate	Major	Extreme
Likelihood	Almost Certain	Medium (7)	Medium (11)	High (17)	Very High (23)	Very High (25)
	Likely	Medium (6)	Medium (10)	High (16)	High (20)	Very High (24)
	Possible	Low (3)	Medium (9)	High (15)	High (18)	High (22)
	Unlikely	Low (2)	Medium (8)	Medium (12)	Medium (14)	High (21)
	Rare	Low (1)	Low (4)	Low (5)	Medium (13)	High (19)

Response to risk

Depending on your current risk rating, the Department has set expectations about response times and review periods. They should be followed where possible.

Risk Rating	*Response to the risk
Very High	• As soon as possible (and within 1 month) commence treatment planning for moderation • Monthly – review by risk owner until effectively moderated. This includes risk treatment status updates • Monthly – provide risk update as relevant to governing body or management team (e.g. Project Board, Divisional Leadership Team, Executive Committee or Executive Management Team) and risk stakeholders
High	• Within 1 month – commence treatment planning for moderation • Monthly – review by risk owner until risk is effectively moderated. This includes risk treatment status updates. • Monthly - provide risk update as relevant to governing body or management team and risk stakeholders
Medium	• Within 3 months – evaluate for treatment planning requirements based on cost/benefit and resource prioritisation • Quarterly – Review by risk owner. This includes risk treatment update (if applicable). • As required, provide risk update as relevant to governing body or management team and risk stakeholders
Low	• Maintain effectiveness of current controls and manage by routine procedures. • Monitoring and review schedule should be considered based on potential rapid escalation/volatility of the risk • As required, provide risk update as relevant to governing body or management team and risk stakeholders

4

Treatments

Risk treatment is the selection of options to reduce the likelihood and/or consequence of the current level of risk.

They may also improve, maintain, or monitor the effectiveness of current controls. Once implemented, these options may become a control or strengthen existing controls.

Decide on your controls, who will implement them, and by when. Once this has been decided, reassess your risk rating imagining that the treatments are in place.

CONTINUE

Lesson 4 of 4

Recording and managing risks

Recording risk

BUSINESS-WIDE RISK REGISTER | LOCAL RISK REGISTER

At FSS, for risks at a stream or business-wide level (i.e. managed by the Leadership Team), RiskMan is used.

RiskMan is Queensland Health's system to assist managers to record and manage risks. Risks are added to RiskMan by the Quality Manager, after approval from the Executive Director.

Risks are reported at the monthly leadership meeting.

BUSINESS-WIDE RISK REGISTER | LOCAL RISK REGISTER

At the work unit level, it is expected that risks are managed in an excel spreadsheet, using the timeframes outlined in the risk analysis matrix.

ID	Risk / Issue title	Current risk	Treatment	Due date	Latest update	Next Review Date	Projected risk	Risk / Issue owner
715	Mortuary facility upgrade	High	installation of temporary shower/toilet amenities block	30-Jun-22	Temporary shower/toilet block installation has commenced and being project managed by Campus Support and Qbuild.	24 Jul 2022	low	CASS, Damien(cassd)
			New forensic pathology building	17-Nov-25	Budget capital statement 21/6/2022 page 78: $21.8 million for new business cases to commence, including the replacement of the Forensic Pathology Facility			

Review your risks

Risk reviews are the responsibility of the risk owner. They are done in consultation with the people coordinating the controls, treatments, and other key stakeholders.

Questions to consider;

- [ ] Is the risk still a risk?
- [ ] Is the risk information current?
- [ ] Is the risk/control/treatment ownership still appropriate?
- [ ] Is the risk rating accurate? (Both current and projected)
- [ ] Are the risk controls working as expected?
- [ ] Have any of the treatments been completed (turning them into a control)?
- [ ] Have the treatments been effective?
- [ ] Are further treatments required?

- [ ] Has the likelihood or consequences changed, affecting the risk rating?
- [ ] Are the time frames for completing treatments still accurate?
- [ ] Are any treatments past their treatment due dates? If so, why?

Good risk management focuses us on allocating resources to the right places, supports decision making, and reduces the likelihood of costly surprises

You have completed this presentation

This module aims to equip you with the knowledge to understand the quality management system at Forensic and Scientific Services and assist you to ensure your work area is compliant with requirements.

Overview of Quality at FSS

Suggested actions for you

Lesson 1 of 2

Overview of Quality at FSS

You probably already have some knowledge of quality management requirements and how they apply to laboratories. Once appointed to a management position, you are now responsible for the overall compliance of your area, and ensuring staff fulfil their responsibilities. This is summarised in the FSS quality commitment (QIS 33322).

- focus on our customers
- achieve operational excellence
- seek relevant certification and accreditation
- reduce variation and waste
- maintain productive management systems
- integrate quality objectives into our business
- hold employees accountable
- source economical and reliable producers
- establish a robust system of risk oversight, management and internal controls
- deliver expert reference and analytical services
- provide efficient cost-effective services

A good starting document is the FSS Quality Management System Guide (QIS 19259) which provides a 'electronic index' to all the documents in QIS that make up the quality management system at FSS, and thus are critical to its proper functioning.

FSS Quality Community of Practice (QCoP)

The FSS Quality Community of Practice meets bi-monthly to discuss quality issues across the campus. It consists of quality representatives from each laboratory -nominated by the team leader. Their job description may include direct responsibility for quality activities in their laboratory, or they may have these in addition to their core role.

Standard agenda items are:

- findings from recent external assessments e.g. NATA
- recent changes to regulations/requirements
- Outcomes from recent internal audits

It is expected that your representative will advise you of any relevant outcomes from each meeting. An easy way to do this is to have Quality as a standing agenda item on your team meetings, and get an update then.

Management Review

Management review is performed annually across the campus, led by the FSS Quality Manager. The review is usually conducted in October using a 'bottom up' approach, with a standard

questionnaire emailed to all business areas to provide input. This is then collated and a formal report provided for the November leadership team meeting.

Additional training

Online training is available in iLearn to find out more about the requirements that apply to FSS.

- Understanding ISO 17025
- Understanding ISO 15189
- Introduction to Legislation
- DAWE Approved Arrangement (AA) Training (AQIS)
- Clinical Governance at FSS
- Internal auditor training

CONTINUE

Lesson 2 of 2

Suggested actions for you

QIS2

QIS2 is the Quality Information System used at FSS to support our quality responsibilities.

It is used for document control, opportunities for quality improvement (OQIs), audits, equipment calibration, and recording professional development

Use your Queensland Health login for access.

Every Monday, staff will receive an automated email from QIS, advising them if they have any actions required. As a manager, you need to ensure these are performed.

How can I monitor my teams quality actions?

Approximately every month, you should run a number of managers report from QIS to find out the following;

1. the open OQIs in your work unit
2. what documents are overdue for review
3. what audits are overdue
4. what audits have been completed in your area (for discussion of the findings and any subsequent actions)
5. what equipment calibrations are overdue
6. which CSPs are past their due date

An iLearn course containing 'how-to' video guides is available for help on running these reports.

QIS 2 Manager reports

Suggested actions...

- [ ] Find out who your QCoP representative
- [ ] Obtain a copy of the last Quality Management Review

Contact the FSS Quality Manager, Helen Gregg, or your line manager for these items

"My office is at the top of the stairs in the main foyer – come and see me!"

- He en Gregg, FSS Qua ity Manager

Name	iLearn - Date of Completion	Paper based - Date of Completi
Aaron Schulze		
Abbey Matheson		19/07/2018
Adam Kaity		06/08/2009
Adedoyin Adebajo		04/06/2009
Adriano Pippia		18/05/2009
Alex Purdie	21.01.2022	
Alex Skocic	04.06.2021	
Alexander Pintara	30.07.2021	
Ali Zahedi	30.07.2021	
Alicia Quartermain		29/04/2009
Alison Slade	30.07.2020	
Alison van den Hout	17.01.2022	
Allen Pye	04.10.2022	
Amanda De Jong	04.10.2022	23/07/2015
Amanda May		17/03/2020
Amy Cleaver		03/07/2019
Amy Morgan		27/08/2014
Anastasia ROBERTS	04.10.2022	
Andrea Norton		26/03/2009
Andrew Griffiths		18/11/2011
Andrew Hardman	02.09.2020	
Andrew Siely		19/02/2015
Andrew Sligo	25.08.2022	
Angela Adamson		29/04/2009
Angelina Keller		06/05/2009
Anne Finch		29/04/2009
Asha Kakkanat		10/08/2017
Ashley Treeby		04/06/2009
Ashley Tronoff		20/05/2011
Ayinde Adekunbi		13/09/2018
Barbara Sendall		06/04/2009
Belinda Mai	03.11.2022	
Bhaumik Bhatt	01.08.2021	
Bradley Van Luenen	24.03.2022	
Brett Swann		29/05/2014
Caiping Li		19/07/2018
Caitlin Stringfellow	07.09.2021	
Cameron Moffatt	07.10.2022	
Camilla Burnett	09.05.2022	
Cara Nicolosi	14.10.2021	
Carissa Sewell	02.03.2022	
Carol Church		11/08/2009
Cassandra James		15/07/2016
Catherine ALLEN		11/03/2009
Cecelia Flanagan	28.05.2021	
Chantal Angus		01/02/2017
Chelsea Savage		27/08/2014
Chenwei Wang	21.06.2021	
Christina Tran	26.07.2022	

Christopher Lock		10/03/2010
Cindy Chang		18/05/2016
Claire Gallagher		18/06/2009
Claudia Kanowski	31.03.2022	
Courtney La Spina		31/01/2018
Courtney Orth	21.01.2022	
Craig Price		05/07/2010
Cristina Vasquez		17/01/2017
Damien Cass		18/01/2010
Daniel Baptista		25/07/2018
Daniel Smart	04.02.2022	
Danielle Johnston		25/06/2014
Daphne Huang		10/06/2009
Darina Hnatko		15/08/2016
Dasuni Harmer	19.04.2021	
Deborah Nicoletti		18/05/2009
Dimitri Nikolakopoulos		25/11/2014
Dominique Scott	18.02.2022	
Donna Martin	29.06.2021	
Dora Bertini		18/06/2009
Eamaandeep SINGH MAAN	14.12.2021	
Elizabeth Gierach	04.05.2022	
Elizabeth Harrison		05/10/2011
Ellen Riedel		13/09/2018
Ellouise Cooper-Denny	15.02.2022	
Emelia Ellaby-Hall	16.09.2022	
Emily Adamovic	10.03.2021	
Emily Bennett	06.05.2021	
Emily Heaphy		19/03/2009
Emma Day		22/04/2020
Frederick Moore		10/03/2010
Gary Fedrick		30/01/2015
Georgina Mayhew		19/11/2015
Georgina Patterson		13/05/2020
Gertrude GRAHAM		16/03/2009
Glen Hewitson		18/04/2011
Hazel Batson		20/09/2016
Heather Gauld	12.05.2022	
Heide Galsote	26.07.2022	
Helen Williams		18/05/2009
Helene Jacmon		06/11/2019
Henghang Tsai		17/06/2011
Heping Liu		18/05/2009
Holly PETERS		11/12/2018
Huey Leong	13.12.2021	
Imelda Keen		25/11/2014
Irani Rathnayake		14/09/2016
Ishvi Williams		25/11/2014
Jack Garland	12.05.2022	
Jack Thompson	19.07.2021	

Jackie Sungsri		22/11/2017
Jaisy Arikkatt	03.09.2021	
James CARTER		09/02/2012
James Hocking	01.09.2021	
Janine Seymour-Murray		06/05/2009
Jeffrey Herse		17/09/2009
Jenna Wolf		25/11/2014
Jennie Wallace		01/06/2010
Jennifer MCGOWAN		11/03/2009
Jennifer Smith		01/06/2010
Jenny Tam		03/06/2009
Jessica Bucak	09.09.2022	
Jessica Dixon		10/06/2009
Jessica Shand	06.09.2022	
Joanne Bayliss		06/05/2009
John Powell		02/12/2010
Jordan Sheppard		05/12/2019
Josie Entwistle		10/06/2009
Judith Molloy	30.03.2022	
Julie Brooks		13/01/2016
Justin Howes		11/03/2009
Karen Blakey		25/07/2018
Karen Reardon		09/03/2009
Karina Streets		06/04/2017
Karyn Loughran		17/09/2009
Kate Brough	29.06.2022	
Katherine Jones	17.11.2021	
Katrina Goodchild		19/07/2018
Kelsey Considine	20.10.2021	
Kenneth Miller		01/10/2009
Kerry Watson		19/03/2009
Kevin Avdic		29/05/2014
Kim Estreich	07.07.2021	
Kirsten McMahon	01.02.2022	
Kirstyn Jory	01.09.2020	
Kragg Dixon	03.06.2021	
Kristina Morton	22.02.2021	
Laura Parsons		12/12/2018
Lawrence Ariotti		04/06/2009
Leonie Cover		04/06/2009
Linda Morley		12/03/2009
Lisa Farrelly		06/05/2009
Lisa Leckie		01/02/2017
Lucy BAHR		03/07/2019
Ludwika Nieradzik	23.10.2020	
Luke Roberts	28.03.2022	
Maddison McLaughlin		11/12/2019
Maddison Sawyer	24.01.2022	
Madeleine Farrell	20.04.2021	
Madison GULLIVER	22.03.2021	

Mai Nguyen		20/10/2009
Mandy Wang	04.04.2022	
Marian LIEN	16.05.2022	
Mark Lindsay		17/09/2009
Mark Waterson		17/09/2009
Mary-Anne Burns	17.09.2021	
Mathew Pillai		23/10/2015
Matthew Meredith		23/03/2011
Matthew Wiggins		06/11/2019
Melanie Fuenzalida		02/12/2010
Melanie Haines	21.03.2022	
Melissa Trujillo Uruena		19/05/2020
Michael Hart		22/07/2014
Michelle Craigie	16.09.2022	
Michelle Warry		27/03/2009
Mitchell Finger		10/03/2010
Mitchell Sullivan	13.05.2022	
Naomi French		04/04/2019
Natasha Davey	14.10.2020	
Nathan Gerchow		22/05/2020
Nathan Jones	30.07.2020	
Nerida Paternoster	30.03.2022	
Nicola Hall	11.05.2022	
Nicole Martin		02/08/2019
Nicole Roselt		14/09/2016
Nigel Goldthorpe		16/09/2015
Niki Kalic	02.06.2021	
Nirdesh Poudel	27.07.2022	
Olivia Jessop	21.03.2022	
Olivia Whelan		25/05/2020
Paran Rayan-Samuel	03.09.2021	
Paula Blacker		25/06/2014
Paula Durrant	17.02.2021	
Penelope Taylor		10/06/2009
Peter Culshaw		26/03/2009
Peter Harris	30.08.2021	25/10/2016
Peter Johnston		17/06/2011
Peter Medley		29/03/2018
Phillip McIndoe		04/04/2019
Pierre Bouchereau de Pury	19.04.2021	
Rachel Whalen		31/03/2015
Rachelle Manning		17/07/2015
Rebecca Morgan		07/03/2012
Renay Almond	04.12.2020	
Rikki Graham		01/06/2010
Riley Hart	23.08.2022	
Rohan Samarasinghe		30/03/2012
Russell Lingard		23/03/2020
Ryan Gallagher		17/07/2020
Ryan Phelan	02.11.2022	

Ryu Eba	09.03.2021	
Sadia Chowdhury		25/11/2014
Sahari Rahim	29.06.2022	
Samantha Granato		11/10/2009
Samantha Porter	17.06.2021	
Samuel Lemon	21.03.2022	
Sarah Atkinson		05/10/2017
Sarah Mullins		05/03/2018
Saxon Campbell		06/11/2013
Sean Moody		19/04/2013
Sharelle Nydam		25/06/2014
Sharon Hickey		19/07/2018
Sharonika Williamson		13/11/2017
Sherri Hasted		19/02/2015
Sherry Turner		31/03/2015
Shiona Croft	25.11.2021	25/07/2018
Simon Collett		03/08/2010
Sonia Johnson		11/08/2009
Sonia Sant		05/12/2019
Soon-Chee Chan		18/05/2009
Stephan Petry		06/10/2011
Stephanie Waiariki		31/01/2018
Suchana SINHA	29.06.2022	
Sumeet Sandhu		28/02/2017
Susan Brady		06/05/2009
Susan Moss		03/01/2018
Suzanne Sanderson		10/06/2009
Tatiana Komarova		06/10/2011
Taylor Sillcock	10.10.2022	
Terriann CHAMBERS	15.08.2022	
Timothy Gardam		18/05/2009
Tracey Moran		08/12/2017
Trysten Viney	07.11.2022	
Tuyet Nguyen		29/04/2009
Ulla Granroth		19/03/2009
Urs Wermuth		03/08/2010
Uthpala James	09.12.2021	
Vasili Demos		29/04/2015
Vicki Hicks		04/06/2009
Vicki Hume		20/05/2011
Vicki Pearce		07/01/2013
Vicki Pendlebury-Jones		31/03/2015
Victoria Cusack		24/03/2009
Victoria Whiting	18.03.2021	
Wendy Harmer		13/03/2009
William Clements		
Xiaohong Yang		11/08/2009
Yolanda Dickeson		17/09/2009
Yvonne Connolly		29/05/2014
Zara Cull	04.01.2022	

ion

Name	iLearn - Date of viewing
Andrew Hardman	23.08.2022
Bronwyn Lind	13.09.2022
Terriann CHAMBERS	07.10.2022

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Name	iLearn - Date of viewing
Becky Coggins	17.03.2022
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Madeleine Farrell	19.04.2022
Mark Stephenson	14.03.2022
Merissa Missingham	15.03.2022
Peter Culshaw	17.03.2022
Sherri Hasted	15.03.2022
Simon Collett	20.04.2022
Terriann CHAMBERS	07.10.2022
Tony Peter	19.04.2022
Tracey Moran	17.03.2022

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Queensland Health

Operational Plan 2022

Scientific Support

Queensland Government

Introduction

This plan is a key reference point for our unit for 2022.

It has been developed with input from all members of the Scientific Support team, and captures the operational goals we wish to achieve both within the team, and across Forensic and Scientific Services for:

- Scientific Skills Development Unit (SSDU)
- Information and Research Service (IRS)
- Quality
- Forensic Property Point (FPP)
- Scientific Services Liaison Unit (SSLU)
- Public Health Property Point (PHPP)

Current services

Scientific Skills Development Unit (SSDU)

SSDU facilities the development of a learning culture across all business units of FSS. We are responsible for leading the design, development, implementation and evaluation of competency-based training programs across FSS. We also facilitate and coordinate the provision of other training services.

Below is a summary of the services provided by the unit:

- Creation and facilitation of online learning
- CSP training
- OHS training
- workplace skills training
- computer training (QIS2, Microsoft365)
- biosecurity import permits
- court training
- student placements
- approvals (State Analyst, drugs and poisons, restricted and prohibited carcinogens)
- Staff, tenant and contractor inductions
- training module development and evaluations for FSS Units
- staff vaccination and health surveillance coordination
- SARAs/targeted training
- ECO member appointment / cancellation coordination
- Fit testing and reporting

Information and Research Services (IRS)

We provide high level professional advice, research and data management and support, resources and assistance in library and information management policy, strategy and direction to the executive team and staff at FSS.

- Media monitoring and subject alerting services.
- Management of the Queensland Health Australian Standards subscription.
- Document delivery and interlibrary loans.
- Reference and literature searching.
- Training in understanding legislation and using EndNote.
- Enabling access to print, electronic and subscription content.
- Ensuring that the library collection and resources meets the information needs of FSS staff.
- Creating and supporting business communications and webpages for an internal and external audience.
- Supporting FSS research and development office, staff and activities.

We can leverage our collaborative networks with Queensland Health libraries, state and federal government and health libraries and other specialist collections to locate information and documents not available within the FSS collection.

In 2022 we officially started to provide services to Pathology Queensland, having previously provided library services as a 'favour'.

A limited range of services (costs may be applicable for resources) are available to:

- Prevention Division
- Health Protection and Communicable Diseases unit (Chief Health Office)
- Metro South Public Health Unit co-located at 39 Kessels Road.

Quality

The Quality Manager is responsible for managing, maintaining and improving all aspects of the FSS quality system including accreditation, certification and any regulatory and legislative requirements relating to laboratory services. It provides authoritative, professional advice and assistance to management, supervisors and employees on quality system issues.

Below is a summary of the services provided by the area:

- laboratory accreditation and certification
- import permits and quarantine approvals
- risk management
- internal audit
- quality management training.

Forensic Property Point

The Forensic Property Point receipts, checks, sorts, registers and distributes all samples submitted by the QPS and other clients for forensic testing. Our service ensures that procedures to maintain the chain of custody are applied correctly, ensuring safe access and storage, and upholding the security of evidence and samples.

The laboratories serviced by Forensic Property Point are Forensic Toxicology, Forensic Chemistry and Forensic DNA analysis.

Scientific Services Liaison Unit

The Scientific Services Liaison Unit (SSLU) is integral to the management and prioritisation of cases within Forensic and Scientific Services. SSLU is the first point of contact for incoming calls and their expertise within the organisation ensures the caller is directed to the correct area without delay. Staff coordinate court appearances and travel requirements of staff, ensure that all statements and certificates are recorded and available for the courts, and ensure relevant information is entered into the laboratory information management systems and the Forensic Register. Additionally, they liaise with the courts to ensure appropriate time frames for analysis are in place.

Public Health Property Point

Public Health Property Point (PHPP) provides a high quality, efficient and professional service to both internal and external clients. PHPP receives, verifies, codes, processes, registers and delivers large volumes of samples for both Pathology and Public Health laboratories.

Samples include notifiable disease samples, pathology specimens, local council and private client environmental samples, and any sample related to the work being undertaken by the public and environmental health laboratory service.

Risks

There are a number of risks which may affect the successful implementation of this plan:

- Lack of stakeholder engagement will impact the delivery of FSS wide goals included in this plan.
- Ineffective organisational structures in some areas of the business will reduce the effectiveness of some initiatives.
- Delays in decision making, and inability to access decision makers in a timely manner will result in delays to this plan.
- Competing operational priorities impacts on the team's ability to deliver outlined objectives.
- Internal and external staff turnover will impact on the effectiveness of the team and a loss of advocates for our services.
- Funding security and budget constraints may affect the ability of the team to deliver some initiatives of this plan.

- Department of Health Business case for change

Evaluation

We continually monitor our progress against the operational plan, and report our performance via:

- service line reports to FSS leadership team (monthly)
- meetings within the unit (monthly)
- individual performance development plans (CSPs)
- ad-hoc meetings with the Quality Manager (as required).

Prior to our next planning cycle, we will evaluate our performance against this operational plan, and use this to inform our next plan.

Scientific Support Operational Plan 2022

1. Internal objectives

Area	Operating Objective *Expected Outcome*	Actions / Strategies *Key tasks to achieve objective*	Benefits *Impact of objective*	Performance Indicator *Measure, Target, Output*	Accountability *Person responsible*	Timeline *Due date*
IRS	Scientific Support Comms	-	Improve communication across all teams	Comms plan	Trish Murphy	Dec 2022
TLs	Define processes for Team leaders Scientific Support	- Identify and document critical processes - Create a OneNote file where information is shared/kept	Increased confidence of staff backfilling the position	Documented processes	Team Leaders	Mar 2023
PHPP	Refurbishment of PHPP area	- Finalise floor plan - Apply for, and secure funding - Commence and complete refurbishment	Increased efficiency and processes with fit for purpose workspace Safe and comfortable environment	Completed refurbishment	H Gregg C Hurst	Dec 2022
FPP	Designated QPS entry into FPP	- Complete floor plan - Apply for, and secure funding - Commence and complete refurbishment	Designated QPS entry into FPP, reducing workload and security at front entrance to FSS More efficient submission process for QPS	Completed refurbishment	H Gregg M Fuenzalida	Dec 2022

Area	Operating Objective *Expected Outcome*	Actions / Strategies *Key tasks to achieve objective*	Benefits *Impact of objective*	Performance Indicator *Measure, Target, Output*	Accountability *Person responsible*	Timeline *Due date*
FPP SSLU	Implementation of updated version of FR	- Participate in workshops - Complete UAT - Identify and implement process improvements - Develop training - Update SOPs	Increased efficiency and processes Reduced workload and stress	Implementation of updated version of FR Smooth transition	H Gregg A Norton M Fuenzalilda	Sept 2021 Currently in UAT.
SSLU	Implementation of new phone system	- Source new phone system - Implement by 30 June 2022	WFH effectively Able to conduct calls from start to end and be able to manage transfer while WFH	Implementation of new phone system Smooth transition	A Norton	Jun 2022
FPP	DNA sample return	- Gain approval for return of samples - Determine what samples can be returned to QPS - Determine process for recording return (AUSLAB or FR) - Return samples	Increase in physical storage space Cleanse of records	Return of samples no longer required	M Fuenzalilda	Dec 2022
FPP	Coronial destructions	- Determine what samples can be destroyed - Gain approval for destruction - Determine process for recording destruction (FR enhancement) - Destroy samples	Increase in physical storage space Cleanse of records	Destruction of samples which are no longer required	M Fuenzalilda	Dec 2022

Area	Operating Objective *Expected Outcome*	Actions / Strategies *Key tasks to achieve objective*	Benefits *Impact of objective*	Performance Indicator *Measure, Target, Output*	Accountability *Person responsible*	Timeline *Due date*
FPP	Monthly audit	- Develop procedure - Update roster to include completion of audit - Create feedback process for FPP Coord	Increased compliance with storage processes	Monthly audits are BAU activity Reduction in errors	M Fuenzalilda	Jun 2022
FPP	Front counter dual screens and monitor arms	- Source quotes for dual screens and monitor arms - Secure funding - Installation	More ergonomic and efficient work environment	Installation of dual screens and monitor arms Increased efficiency by being able to view two LIMS and calendar all at once	M Fuenzalilda	June 2022
FFP	Scheduling of deliveries to FPP via appointments	- Investigation of option and implementation if feasible	Better manage workload in FPP		M Fuenzalida	Dec 2022
Quality	Electronic AVAC	- Follow up status with MyHR BSQ	Streamline and minimise paperwork		C Vasquez	Jun 2022
FPP	Uninterrupted FPP team meetings	- Block out time to clients - Send comms out to QPS notifying of closure time	Set time aside for team to come together Team building Improve communications/team expectations		M Fuenzalida	Jun 2022
TL	Manage poor performance	- Engage HR advisor to provide skills to TLs	- Better management of poor performance - Improved confidence of team in management of poor performance	Improved WfQ scores for management of poor performance	H Gregg	Dec 2022

2. External objectives (FSS facing)

Area	Operating Objective *Expected Outcome*	Actions / Strategies *Key tasks to achieve objective*	Benefits *Impact of objective*	Performance Indicator *Measure, Target, Output*	Accountability *Person responsible*	Timeline *Due date*
IRS	Comms Plan	- Draft policy and activities - Feedback and approval sought from FSS staff and ED - Staff feedback incorporated - Processes written for activities - Approval processes for various comms documented and disseminated to staff	Better position FSS to expand national and international links and collaborations to grow our customer base	Plan updated and communicated to staff	T Murphy	Jun 2022
IRS	Streamline processes	- Lepto library resources (procedures) - Investigate document delivery/retrieval using EndNote - Investigate replacement of dbtext functionality into Alma	Improved processes for accessing services	Finalised Lepto library Implementation of EndNote process Acquisitions, serials, and other collection management	C Church S Johnson T Murphy	Dec 2022 Dec 2022 Dec 2022

Area	Operating Objective *Expected Outcome*	Actions / Strategies *Key tasks to achieve objective*	Benefits *Impact of objective*	Performance Indicator *Measure, Target, Output*	Accountability *Person responsible*	Timeline *Due date*
SSDU	Leverage benefits of iLearn, including fee for service activities	- Continue to build training content online (e.g. management training) - Move F2F content online - Develop Cert 3/4 in Mortuary Practice	Increased visibility of SSDU services Embed training in business areas Develop revenue stream for Scientific Support	F2F content moved online SSDU becomes RTO Revenue stream for Scientific Support In discussion with QTB for charging for training creation and delivery	K Jory	Dec 2022
SSLU FPP	Streamline Forensic Chemistry processes	- Work with Forensic Chemistry, DJAG and QPS for consistent rules - Draft changes to QP127 and finalise in consultation with QPS and Forensic Chemistry - Develop training for clients - Roll out training and new QP127	Increased information included on QP127 Improved compliance of QPS for services from FChem Decreased changes requested by Forensic Chem to FPP and SSLU processes	Consistent and stable processes for supporting FChem	A Norton M Fuenzalilda	Dec 2022
FPP	Review Forensic Chemistry allocation process	- Discuss with FChem and develop draft process - Trial process and implement	Improved chain of custody Increased workflow efficiency	Allocation process with unambiguous chain of custody	M Fuenzalilda	Dec 2022
Sci Supp	Implement process for introducing new staff to relevant Scientific Support areas	- Identify key contacts for new staff - Update business areas induction programs	Better understanding of client areas, and services provided	Updated induction programs Process implemented	Team Leaders	June 2022

Area	Operating Objective *Expected Outcome*	Actions / Strategies *Key tasks to achieve objective*	Benefits *Impact of objective*	Performance Indicator *Measure, Target, Output*	Accountability *Person responsible*	Timeline *Due date*
FPP	Visits to QPS property points across Brisbane		Enhance communication Improve internal/external processes Increase collaboration Network		M Fuenzalida	Dec 2022

3. Future objectives (beyond 2022)

The following objectives were identified during the 2022 planning session, and should be considered for 2023

- budget to provide training.

Queensland Health

Learning Management System Implementation Project Business Case

June 2021

Queensland Government

Document sign off

Endorsement by Forensic and Scientific Services

Endorsement of the business case supporting preferred *Option 4: Implementation of a preferred LMS (B-Online) across Forensic and Scientific Services.*

Name: John Doherty

Position: Executive Director, Forensic and Scientific Services

Signature [redacted] *Date:* 13/7/21

Contents

Summary

An electronic Learning Management System (LMS) provides improved visibility, reporting, and accessibility of the delivery of training and assessment, required to meet legislative and role-specific training obligations.

Currently, Forensic and Scientific Services (FSS) utilise the LMS iLearn, hosted by Human Resources Business Intelligence (HRBI), Department of Health. HRBI has advised that the longevity of iLearn is finite, indicating a contract end date of January 2023. During this time, it is not expected that previously noted enhancements (i.e. dashboards and learning pathways) will be implemented.

FSS requires an LMS that is stable and fit-for-purpose for the objectives and scope of our scientific learning and development requirements, and will deliver the following benefits:

- Support of on-demand training and reduction in need for "live" demonstrations
- Position based reporting that shows overall learner progress and compliance
- Audio-visual recording of infrequently performed and/or higher risk training activities
- Visibility of cross-skilling across the organisation for when emergent needs arise
- Ability to offer and the potential to charge for client-based training

The negative impact of not implementing a fit-for-purpose instance of a LMS at FSS is the continued use of an ineffective paper-based system, with the on-going risks of laboratory accreditation non-compliance from incomplete or missing records.

Four options were considered as part of this business case. These included:

1. Do nothing
2. Revert to paper-based training and assessment
3. Implementation of a preferred LMS (B-Online) across FSS and Pathology Queensland (PQ)
4. Implementation of a preferred LMS (B-Online) LMS for FSS

The recommended option is **Option 4.** Upon advice from PQ Skills Development Unit (SDU), their current training framework is suitable for their needs, and they do not require the proposed benefits of an improved LMS.

There is a need to seek **~$24 750 +GST** funding for the implementation and first year subscription for the instance of the preferred LMS (B-Online) and **$15 750 +GST** each ongoing year over a minimum of five years.

The timeline for implementation and transition is expected to be approximately **six months** commencing in **July 2021.**

1 Scope

It is intended that the LMS will be implemented across FSS, focusing on role-specific training and assessment at a minimum.

G6 Mandatory Training will continue to be accessed via the DoH LMS (currently iLearn) until files are shared and can be housed and reported through the FSS instance of LMS (B-Online).

The opportunity for PQ to opt-in to the FSS LMS instance is readily available (subject to purchasing active user licenses) and PQ can utilise FSS' project plan and lessons learnt to assist in the transition.

FSS SSDU will continue to source collaboration opportunities with PQ SDU.

1.1 Assumptions

The business case has been prepared based on the following assumptions:

- Cessation, or limited longevity of DoH HRBI LMS, iLearn
- No additional FTE resources will be required to implement or support the LMS

1.2 Timeframe

The recommended timeframe for implementation and transition is expected to be approximately six months commencing in July 2021.

2 Benefits and related initiatives

2.1 Expected benefits

The expected benefits of this initiative include:

- Transition away from paper-based training records
- Increased compliance due to increased visibility of training progression and completion
- Support of on-demand training and the reduction in need for face-to-face workshops
- Contextualised reporting that shows overall learner progress in relation to their role-specific learning pathway, visible to both the learner and line manager/ training coordinator
- Audio-visual recording of infrequently performed and/or higher risk training activities
- Visibility of transferable and cross-skill across the organisation for emergent needs
- Ability to offer and the potential to charge for client-based training
- Efficient business processes for FSS SSDU, line managers and training coordinators

2.2 Related initiatives/dependencies

The initiatives shown in the table below are dependent on this project.

Related project	Nature of the relationship
Fee-for-service	Client-based training packages can be created and charged to create a revenue stream for FSS

Table 1: Project relationships

2.3 Constraints

The business case has been prepared based on the following constraints:

- FSS operational budget does not have existing funding to fund the installation and subscription of a fit-for-purpose LMS

3 Strategic options

3.1 Identification of options

The options identified are:

1. Do nothing
2. Revert to paper-based training and assessment
3. Implementation of a preferred LMS (B-Online) across FSS and PQ
4. Implementation of a preferred LMS (B-Online) across FSS only

3.1.1 Option 1 – Do nothing

In this option, FSS would continue to host SSDU-facilitated training through iLearn and continue role-specific training and assessment as paper-based.

FSS would be reliant upon decisions formed by HRBI regarding the longevity of iLearn and any alternate solutions. This is high-risk knowing that HRBI has not engaged FSS SSDU as stakeholders in forming any previous decisions, and are unlikely to engage FSS in any future decisions of alternate solutions.

FSS would hope that HRBI would assist in the export of training records within iLearn but it is most likely that the records transferred would be that of "completion" transcript only. This would require SSDU to complete laborious manual export of evidence, comments and feedback which are required for complete records of assessment.

The risks associated with *Option 2 – Revert to paper-based training and assessment* would also hold true for this option.

3.1.2 Option 2 – Revert to paper-based training and assessment

In this option, FSS would revert to our previous approach of paper-based training and assessment. This approach is high-risk due to laboratory accreditation non-compliance from incomplete or missing records. There would also be an increased inefficiency and transparency as paper-based training and assessment does not support seamless management reporting.

FSS SSDU has recorded ~400hrs/year time-saving efficiency by transitioning to an electronic LMS over the last 12months. Reverting to face-to-face delivery of SSDU-facilitated training will abolish on-demand training and increases time spent delivering and assessing competency – losing our currently gained, and all future efficiencies.

3.1.3 Option 3 – Implementation of a preferred LMS (B-Online) across FSS and PQ

In this option, a preferred LMS (B-Online) that is fit for scientific, competency-based training and assessment with the ability to charge fee-for-service for client-training would be implemented across FSS and PQ. A shared LMS across FSS and PQ would ensure a decreased duplication of content and increased collaboration for cross-skilling.

After consultation with PQ SDU, it has been advised that PQ's approach to training and assessment does not align with FSS' approach, and as such, there is no immediate need to transition to an LMS that is fit for scientific, evidenced-based training and assessment.

PQ's preference is towards face-to-face training, and the training that is delivered electronically is through a "presentation + quiz" approach. iLearn supports the easy import and export of this type of data. This differs to FSS' preference towards blended training, with assessment (including evidence, feedback, comments, re-evaluation etc.) electronically captured. iLearn does not support the easy export of this type of completion data.

3.1.4 Option 4 – Implementation of a preferred LMS (B-Online) across FSS

In this option, a preferred LMS (B-Online) that is fit for scientific, competency-based training and assessment with the ability to charge fee-for-service for client-training would be implemented across FSS. This option would deliver all the proposed expected benefits and related initiatives/ dependencies.

3.2 Comparison of options

Analysis	Option 1 – Do Nothing	Option 2 – Revert to paper-based training and assessment	Option 3 – Implementation of a preferred LMS across FSS and PQ	Option 4 – Implementation of a preferred LMS across FSS
Benefit	Nil	Nil	All expected benefits of this project would be met, as well as decreased duplication and increased collaboration opportunities.	All expected benefits of this project would be met.
Risk	**High** Continued uncertainty of iLearn longevity with no alternative solution in play. Export of present training and assessment completion from iLearn is laborious.	**High** Reverting to previous approach of paper-based training and assessment is ineffectual, with the on-going risk of laboratory accreditation non-compliance due to incomplete or missing records. Reverting to face-to-face delivery of SSDU-facilitated training will abolish on-demand training and increases time spent delivering and assessing competency.	**Medium** FSS and PQ staff are not familiar with this LMS. Perceived limited benefit to PQ for their current training structure.	**Medium** FSS staff are not familiar with this LMS.
Impact	Negative change-management after showcasing electronic LMS benefits to all FSS staff which garnered positive feedback.	Negative change-management after showcasing electronic LMS benefits to all FSS staff which garnered positive feedback.	Implementation of an LMS that meets all expected benefits and will result in more efficient business processes, as well as decreased duplication and increased collaboration opportunities	Implementation of an LMS that meets all expected benefits and will result in more efficient business processes.
Costs	Nil upfront costs but decreased efficient business processes.	Nil upfront costs but decreased efficient business processes.	Implementation *split 50:50:* ~$13 500 +GST Subscription *split 20:80*: $59 85 +GST/year over 5yr contract **3001 – 3500 active user accounts*	Implementation: ~$9 000 +GST Subscription: $15 470 +GST/year over 5yr contract **251 – 500 active user accounts*

Table 2 – Comparison of options

3.3 Preferred option for LMS

Based on the analysis, the preferred option is **Option 4 – Implementation of a preferred LMS (B-Online) across FSS.** This option allows for all expected benefits to be realised. With this option, a shortlist of LMS vendors have been prepared and compared with the recommendation that B-Online is the LMS implemented.

Capability	B-Online	Moodle	Brightspace (iLearn)	SAP Litmos
User-friendly interface	Interface is intuitive from both a learner and a trainer perspective	Interface is sufficient to not require learner training guides, however, is difficult and unintuitive from a trainer perspective	Although FSS is familiar with Brightspace (i.e iLearn), the interface is not user friendly and requires learner and trainer training guides	Interface is intuitive from both a learner and a trainer perspective
Learner dashboards contextualized to role (learning pathways)	Intuitive and responsive learner dashboards that include learning pathways and renewal (re-evaluation) training	Intuitive and responsive learner dashboards that include learning pathways and renewal (re-evaluation) training	No learning dashboards or ability to implement learning pathways	Intuitive and responsive learner dashboards that include learning pathways and renewal (re-evaluation) training
Manager dashboards and reporting capabilities	Intuitive and responsive manager dashboards that show team and individual reports	Ability to create responsive reports of team and individual reports	No manager dashboards or internal reporting capability	Intuitive and responsive manager dashboards that show team and individual reports
Supports competency-based training and assessment	Superior system meeting all requirements	Ineffectual system meeting limited requirements	Moderate system meeting most requirements	Ineffectual system meeting limited requirements
• Recording of evidence	✓	✗	✗	✗
• Supports model answers	✓	✗	✓	✗
• Allows for sign-off	✓	✗	✓	✗
• Re-evaluation capability	✓	✓	✓	✓
Allows for restricted content within the one "course" based on user-attributes	User attributes are attached to each active user, not the course, so automated restrictions based on attributes is available within every "course"	Requires workaround of manually setting up groups for each course, then manually entering each user into a specified group to allow for content restrictions	Requires workaround of manually setting up groups for each course, then manually entering each user into a specified group to allow for content restrictions	User attributes are attached to each active user, not the course, so automated restrictions based on attributes is available within every "course"

Capability	B-Online	Moodle	Brightspace (iLearn)	SAP Litmos
All records, including those of inactive users (i.e. staff that have left the organization) are kept within the system with the ability for export	All records of all users (active or inactive) are kept within the system and can be exported as required with ease	All records of all users (active or inactive) are kept within the system and can be exported as required with manual manipulation of reporting set-up	Records of inactive users are kept within the system but due to poor reporting capability, very manual task to extract	All records of all users (active or inactive) are kept within the system and can be exported as required with ease
Versioning control which shows the date of update and which users completed which version of materials	Online content element will have versioning capability in July 2021	No version management- requires manual workaround of dragging files into a course with versioning information and hiding it so only admins can see the file	No version management- requires manual workaround of keeping files/ modules with versioning information and hiding it so only admins can see the file	No version management- requires manual workaround of keeping files/ modules with versioning information and hiding it so only admins can see the file
Ability to integrate fee-for-service payment for training packages	Supports fee-for-service integration	Through use of third-party plugins (i.e. PayPal plugin) there is capacity to support fee-for-service integration	Does not support fee-for-service integration	Does not support fee-for-service integration

Table 3 – Comparison of LMS

4 Benefits realisation

The anticipated benefits for this project are summarised in the following table:

Benefit No.	Description	Performance measure	Baseline performance value	Target performance value	Realisation date/ expected timeframe
1.	Transition away from paper-based training records	Transfer of current paper-based training modules into the LMS	Transfer of current paper-based training modules into a template allowing for transition into LMS	>80% transfer of current paper-based training modules	Immediately upon implementation and creation of training
2.	Increased compliance due to visibility of training progression and completion	Audit and traceability of records in compliance with Accreditation (ISO 17025 and ISO 15189) and Certification (ISO 9001)	All records are completed and kept within the system	>99% of electronic records are reflective of true competency and compliance with available completed evidence	Immediately upon implementation and creation of training
3.	Support of on-demand training and the reduction in need for face-to-face workshops	Training material available and accessible 24/7, including post-competency as a resource	All training material currently available transitioned to e-learning package for import into the LMS	>80% of face-to-face workshops transitioned to "blended" training (decreasing face-to-face time spent) or "self-paced" (eliminating face-to-face time spent)	Immediately upon implementation and creation of training
4.	Contextualised reporting that shows overall learner progress in relation to their role-specific learning pathway, visible to both the learner and line manager/ training coordinator	Visibility of true records, plus notifications and escalation processes for completion and compliance of training as per the learners learning pathway	Decreased time spent manually reviewing paper-based training modules completion and compliance and comparing that to the learners learning pathway	Visibility of true and accurate records noting completion and compliance in the one system as per a learning pathway	Immediately upon implementation, creation of training and import of completed paper-based training modules
5.	Audio-visual recording of infrequently performed and/or higher risk training activities	Training resources and collateral vetted/ created	Vetting already available resources and collateral (i.e. those created outside of FSS) to be linked/ embedded within the training	>80% of training to include resources and training collateral which is accessible before and/or after competency. Learning materials (audio-visual) recorded as risk mitigation control	Immediately upon implementation and creation of training and upload of recorded content

Benefit No.	Description	Performance measure	Baseline performance value	Target performance value	Realisation date/ expected timeframe
6.	Visibility of transferable and cross-skill across the organisation for emergent needs	Ability to review training completions and compliance in bulk across the organisation	All completed/ compliance training completed within the LMS available and visible	All completed paper-based training modules imported with completion/ compliance data allowing for immediate visibility of whole-of-campus training	Immediately upon implementation, creation of training and import of completed paper-based training modules
7.	Ability to offer and the potential to charge for client-based training	Creation of client-based training fit for sale	Creation and client-based training to support procedures/ tasks of FSS staff	Creation and distribution of client-based training including a revenue stream offsetting the system cost	Post transition of all internal training modules to the LMS.
8.	Efficient business processes for SSDU, line managers and training coordinators	Time saved from administrative processes (printing, collating, creating test accounts); grading (locating model answers) and follow-up (manually delivering paperwork for signatures/ dates/ feedback/ resubmissions/ recording in QIS)	All elements of training and assessment housed in the one learning management system. One source of truth for competency and compliance	All elements of training and assessment housed in the one learning management system. One source of truth for both competency and compliance including previously completed paper-based training modules	Transition of all delivered training modules to the LMS

Table 4 – Benefits realisation

5 Costs

Description	Option 4 – Implementation of a preferred LMS (B-Online) across FSS	TOTAL
Implementation by Vendor	Planning & Define Phase	1 500
	Build Phase	4 500
	Deployment tasks, including training administrator	3 000
Subscription (yearly)	251 – 500 active user licenses	15 750
TOTAL		$24 750 +GST

Table 5 – Expected project costs

6 Implementation plan

The Learning and Development Senior Project Officer position within FSS SSDU will lead the implementation and adoption of the proposed LMS at FSS.

It is proposed that the L&D Senior Project Officer will;

- Implement organisational hierarchy within the LMS for reporting purposes
- Facilitate the transfer of current training packages hosted on iLearn, including all evidence of completed training and assessment to the new LMS
- Work closely with SSDU, line managers and training coordinators to transition site-wide paper-based training modules into the LMS
- Work closely with SSDU, line managers and training coordinators to transfer current staff competencies into the LMS
- Organise change-management activities, such as showcases and small-group meetings with key-stakeholders to provide implementation and adoption updates

Queensland Health

C-ECTF-21/23556
FSS/SSDU

ACTING DEPUTY DIRECTOR-GENERAL AND CHIEF MEDICAL OFFICER BRIEFING NOTE

SUBJECT: Approve the dispensation from iLearn and the procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training and assessment system for Forensic and Scientific Services

☐ Approved ☐ Not approved ☐ Noted ☐ Signed (correspondence) ☐ Further information required (see comments)	Signature..... Date...../...../..... Professor Keith McNeil, Acting Deputy Director-General and Chief Medical Officer, Prevention Division and Chief Clinical Information Officer, Queensland Health Comments:

ACTION REQUIRED BY
There is no specific timeframe required.

RECOMMENDATION It is recommended the Acting Deputy Director-General:

- **Approve** the dispensation from iLearn and the procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training and assessment system for Forensic and Scientific Services (FSS) (Attachment 2).

ISSUES

1. FSS requires dispensation from the use of the Department of Health Learning Management System (LMS), iLearn, which is not fit-for-purpose under the the objectives and scope of the scientific learning and development requirements for FSS.
2. FSS needs to procure and implement a fit-for-purpose LMS, Birch Learning Platform, that supports visibility, reporting and accessibility of training and assessment required to meet training and regulatory obligations.
3. The negative impact of not implementing a fit-for-purpose system is the continued use of an ineffective paper-based system, with the on-going risks of laboratory accreditation non-compliance from incomplete or missing records.
4. A fit-for-purpose LMS is needed in order to develop a revenue stream for FSS to develop a training program similar to a Certificate IV in Mortuary practice which will provide trained mortuary attendants to support the Regional Coronial Services Plan.

BACKGROUND

5. The preferred LMS, Birch Learning Platform, is in-use and positively evaluated for similar evidence-based training and assessment puposes across five (5) Hospital and Health Services (HHS).
6. Department of Health LMS, iLearn, longevity is under review. If an alternative LMS is implemented as a whole of governement approach and is fit-for-purpose, FSS can transition to this system.
7. Implementation and adoption of B-Online Birch Learning Platform will be led by the L&D Senior Project Officer position within FSS SSDU through a phased-approach.
8. G6 (QH-POL-183) Mandatory training courses will continue to be completed by FSS employees in iLearn.

RESULTS OF CONSULTATION

9. The previous Executive Director, FSS endorsed the business case supporting the implementation of Birch Learning Platform at FSS (Attachment 1).
10. Pathology Queensland Scientific Skills Development Unit (PQ SDU) were consulted for opt-in to the implementation but declined stating they do not require the proposed benefits of an improved LMS.
11. HHS' Learning and Development units using Birch Learning Platform (Wide Bay, Metro South, and Mackay) were consulted to gauge the systems fit-for-purpose and satisfaction.
12. FSS training coordinators were consulted outlining benefits of the implementation and adoption of a fit-for-purpose LMS with positive uptake.
13. Gemma Mockler, Senior Business Performance Officer, Forensic and Scientific Services, confirmed the purchase of the LMS was unable to be funded from non-labour budget, however she supports the development of a revenue stream to offset setup and operational costs, and the potential to upskill and cross train existing staff to save on labour costs.

RESOURCE/FINANCIAL IMPLICATIONS

14. Funding for the subscription based model ($17550 +GST per year for 5 years plus a one-off cost of $9750 +GST for implementation) is additional to the current allocated budget from cost centre 100931
15. The new system is expected to be a revenue source for the business, providing an estimated funding of at least $25,000 per annum, based on providing 5 places at $5,000 per trainee for training in mortuary practice equivalent to a Certificate IV.

SENSITIVITIES/RISKS

16. Nil

ATTACHMENTS

17. Attachment 1. Business Case
    Attachment 2. B-Online Learning Proposal

Author	Content verified by	Cleared by (Dir/Snr Dir)	Cleared by GMPQFSS
Name: Kirstyn Jory Position: Senior Learning & Development Project Officer Unit: Scientific Skills Development Unit Tel No: 07 3096 2625 Date Drafted: 30/11/2021	Name: Helen Gregg Position: Quality Manager Branch: FSS/Prevention Division Tel No: 3096 2608 Date Cleared: 14/12/2021 **Note clearance contact is also key contact for brief queries**	Name: Lara Keller Position: A/Executive Director Branch: Prevention Division Tel No: 3096 2631 Date Verified: 14/12/2021 [redacted]	Name: Brett Bricknell Position: General Manager PQFSS Branch: Prevention Division Tel No: Date Verified: /12/2021

Helen Gregg

From: FSS Corro
Sent: Friday, 25 February 2022 8:40 AM
To: Helen Gregg
Subject: RE: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Thanks Helen, I will update Content Manager accordingly and review with post 30/3

Kind regards Sandy

From: Helen Gregg <[redacted]
Sent: Friday, 25 February 2022 8:16 AM
To: FSS Corro <[redacted]
Subject: RE: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Hi Sandy,

My apologies – I should have provided you with more information. We are meeting again on 30/3 to progress, so a follow up date after that will save you time

Regards
Helen

From: FSS Corro <[redacted]
Sent: Friday, 25 February 2022 7:40 AM
To: Helen Gregg <[redacted]
Subject: RE: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Thanks Helen. I shall note a resubmit for 2/52's and follow-up with you😊.

Kind regards Sandy

From: Helen Gregg <[redacted]
Sent: Thursday, 24 February 2022 4:03 PM
To: FSS Corro <[redacted]
Subject: RE: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Still pending – still working on it

From: FSS Corro <[redacted]
Sent: Thursday, 24 February 2022 3:54 PM
To: Helen Gregg <[redacted]
Subject: FW: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve

procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Hi Helen

Following the meeting on 25 Jan with Greg Manning, can this request be closed off as finalised or still pending?

Thanks Sandy

From: Pathology Queensland <[redacted]
Sent: Thursday, 24 February 2022 9:43 AM
To: FSS Corro <[redacted]
Subject: RE: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Hi Sandy

I hope you've had a good week!

Not urgent at all but this one is still on my outstanding task list – do you think you should close the container or are you expecting the brief be resubmitted?

Kind regards
Gemma

From: FSS Corro <[redacted]
Sent: Monday, 17 January 2022 3:28 PM
To: Pathology Queensland <[redacted]
Subject: RE: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

FYI – Helen and Lara will be meeting with HR this Friday and I have a note to follow up with her on Monday 24th Jan.

Sandy

From: Pathology Queensland <[redacted]
Sent: Monday, 17 January 2022 2:19 PM
To: FSS Corro <[redacted]
Subject: RE: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Why don't we wait to receive Helen's feedback following her meeting and go from there 😊
Gemma

From: FSS Corro <[redacted]
Sent: Monday, 17 January 2022 2:16 PM
To: Pathology Queensland <[redacted]
Subject: RE: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Lol was thinking shd I tell Gemma *now* that I am waiting for Helen Gregg's feedback re her mtg with HR and will then update the container or tell her when I finalise the container. Is that OK?

From: Pathology Queensland <[redacted]
Sent: Monday, 17 January 2022 2:12 PM
To: FSS Corro <[redacted]
Subject: RE: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Thanks Sandy. We might need to close the container at some point (assuming there's no further action). Lets discuss another time 😊
Gemma

From: FSS Corro <[redacted]
Sent: Monday, 17 January 2022 2:10 PM
To: Pathology Queensland <[redacted]
Subject: RE: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Thanks Gemma, I have passed on the email to Lara and Helen Gregg for noting.

Kind regards Sandy

From: Pathology Queensland <[redacted]
Sent: Monday, 17 January 2022 12:30 PM
To: FSS Corro <[redacted]
Subject: FW: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Hi Sandy

Please note further comments from HR in the email below regarding C-ECTF-21/23556, which states:

> Please note the proposal below goes against the intent of the of Queensland Health's Digital Health 2031 Strategic Vision and I have attached some (draft) documents for you to review.
>
> It is also worth noting that the iLearn contract was extended for 2 years with a 1-year optional extension so that the Department (with all HHS and Divisional representatives) have sufficient time to review current and future needs, go to market, and implement a new LMS for all of Queensland Health to use.

Kind regards
Gemma

From: Phillip Fogarty <[redacted]
Sent: Monday, 17 January 2022 11:46 AM
To: HRBI <[redacted]
Cc: Gemma Daynes <[redacted]
Subject: RE: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Thanks Ben,

Appreciate you feedback.

Regards

Phil

Phillip Fogarty
Manager, Business Services

Phone: 07 [redacted]
Mobile: [redacted]
Address: Lv 2 33 Charlotte Street, Brisbane, QLD, 4000
Email: [redacted]

Queensland Health
Office of the Chief Health Officer and Deputy Director-General
Prevention Division,

www.health.qld.gov.au

Queensland Government

Queensland's Health Vision: By 2026 Queenslanders will be among the healthiest people in the world.

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and future.

From: HRBI <[redacted]
Sent: Monday, 17 January 2022 10:58 AM
To: LeadershipCapability <[redacted] Phillip Fogarty <[redacted]
Cc: SPS-GOV <[redacted]
Subject: RE: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Hi Phil and Eliza,

Please note the proposal below goes against the intent of the of Queensland Health's Digital Health 2031 Strategic Vision and I have attached some (draft) documents for you to review.

It is also worth noting that the iLearn contract was extended for 2 years with a 1-year optional extension so that the Department (with all HHS and Divisional representatives) have sufficient time to review current and future needs, go to market, and implement a new LMS for all of Queensland Health to use.

Happy to discuss at any stage.

Thanks,
Ben

Queensland Government

Ben Knight (working remote)
Senior Advisor Learning Solutions
HR Branch, Corporate Services
Division | Queensland Health
Working hours Monday to Friday

P Available on Teams or Email
E [redacted]
W health.qld.gov.au
A Level 5, 33 Charlotte Street, Brisbane, QLD 4000

Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and future.

-----Original Message-----
From: LeadershipCapability <[redacted]
Sent: Tuesday, 4 January 2022 10:41 AM
To: Phillip Fogarty <[redacted]
Cc: SPS-GOV <[redacted] HRBI <[redacted] LeadershipCapability <[redacted]
Subject: FW: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Hi Phil,

Thank you for your email.

This would be best answered by the Procurement team. I have Cc'd them in for advice.

This QHEPS page may also be of assistance: https://qheps.health.qld.gov.au/strategic-procurement/list.

Warm regards,

Eliza

Eliza Ross
Senior Advisor
HR Branch, Corporate Services Division | Queensland Health Working hours Monday to Friday Chat with me on Teams!

P
(07) [redacted]

E

[redacted]

W
health.qld.gov.au

A
Level 5, 33 Charlotte Street, Brisbane City

Queensland Health acknowledges the Traditional Custodians of the land across Queensland, and pays respect to First Nations Elders past, present and future.
Visit the Learning Gateway in iLearn to see what training opportunities are coming up.
Would you like development opportunities sent directly to your inbox? Subscribe to the DoH Development Newsletter today!

The Capability team is alternating between the office and working remotely. The best way to contact us is by emailing the person you are trying to reach or via our team email [redacted]
We are also available to respond to messages via Microsoft Teams.

-----Original Message-----
From: Phillip Fogarty <[redacted]
Sent: Tuesday, 4 January 2022 10:16 AM
To: LeadershipCapability <[redacted]
Subject: FW: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Hi Team,

Can you please advise on the process that PQ would need to take to deviate from the iLearn system for FSS learning and regulatory requirements. Is DDG CSD approval required?

Thanks

Phil

Phillip Fogarty
Manager, Business Services

Phone: 07[redacted]

Mobile: [redacted]
Address: Lv 2 33 Charlotte Street, Brisbane, QLD, 4000
Email: [redacted]

Queensland Health
Office of the Chief Health Officer and Deputy Director-General Prevention Division,

www.health.qld.gov.au

Queensland's Health Vision: By 2026 Queenslanders will be among the healthiest people in the world. Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and future.

-----Original Message-----
From: Gemma Daynes <[redacted]
Sent: Wednesday, 15 December 2021 4:51 PM
To: Phillip Fogarty <[redacted] Yvonne Li <[redacted]
Subject: For clearance: C-ECTF-21/23556 : CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system fo

Hi Phil

Please refer to above brief for your clearance prior to A/DDG consideration.

Yvonne, Brett has left a note in the container to say he has asked you to review to ensure A/DDG can make this decision (given it is the Department's mandated LMO).

I am on leave for the rest of the week but back on Monday 20 Dec if you wish to discuss further.

Many thanks
Gemma

------< Content Manager Record Information >------

Record Number: C-ECTF-21/23556
Title: CD Nil DDG BA to Approve the dispensation from iLearn and Approve procurement via sole-supplier of Birch Learning Platform as the scientific evidence-based training & assessment system for FSS

HealthSupport
Queensland

Forensic and Scientific Services

Concept Brief - Minor Capital Request

Quality and Compliance

Project Name	Purchase of Fluke Microbath 7103-TR-256
Description	The Fluke Microbath 7103-TR-256 is a compact oil bath that has a temperature range of -20°C to 150°C. It serves as a stable cold or heat source to easily check working thermometers in accordance with NATA requirements
Addition or Replacement	☒ Additional ☐ Replacement ☐ Enhancement
Business benefits/ outcomes	Currently thermometer checks can only be reliably performed at ice point. These are done using an ice slurry. The preparation of an ice slurry is time consuming (approx. 30 mins), and is unstable over time, reducing the number of thermometers that can be checked at once. Purchase of the Fluke Microbath 7103-TR-256 will remove the time consuming requirement to prepare an ice slurry, and provide a stable temperature source to perform multiple thermometer checks. In addition, many thermometers are not used at 0°C, and ideally should be checked at their working temperature (eg -20°C, 4°C, 37°C etc). The Fluke Microbath allows thermometers to be checked over a range of temperatures, from -20°C to 150°C. Use of the Fluke Microbath adopts commercial principles, by allowing staff to be more efficient and productive, performing core business activities, instead of preparing ice slurries.
Timeframe	Purchase of the equipment should be made as soon as approval is given
Senior responsible owner	Helen Gregg, Quality Advisor, Quality and Compliance Unit [redacted]

Strategic alignment

☐ Optimise customer experience
☐ Develop our people
☐ Innovate service delivery
☒ Adopt commercial principles

Business justification

☐ **Meets a customer need**	
☒ **Improve business efficiency**	Allows staff to be more efficient and productive, performing core business activities, instead of preparing ice slurries.
☒ **Reduce risk**	Assists staff to perform thermometer checks in accordance with NATA timeframes (6 monthly), using a stable temperature source that can check multiple thermometer at once. Thermometer checks are often not performed 6 monthly, due to the time taken to perform them.
☐ **Increase team capabilities**	
☐ **Decrease price to customers**	

Business partner(s)/stakeholder(s)

Internal to HSQ	All laboratories
External HSQ	Nil

Risks

Risk of not proceeding	Business efficiency will be compromised and NATA accreditation requirements will not be met

Estimated investment/funding source

In-kind (within current budget and resourcing)	$
Operational (new / additional funding required)	$770 (3.8L silicon oil per year)
Minor Capital	$10469.50 (ex GST)
Total estimated investment	$10496.50 (ex GST) with $770 per year recurrent
Cost centre	787248

Delivery capability

Internal capability to deliver project?	☒ Yes ☐ No If no, specify why and detail additional capability needed. Also detail how additional capability will be sourced (i.e. procurement strategy)

APPROVED/NOT APPROVED

[redacted]

Paul Csoban
Senior Director
Forensic and Scientific Services

Date 29/2/16

Comments:

Author	**Cleared by**
Helen Gregg, Quality Advisor Quality and Compliance Unit [redacted] Date submitted: 29 February 2016	Paul Csoban, Executive Director Forensic and Scientific Services [redacted] Date submitted: 29 February 2016

TBM Office only	
Checklist: ☐ Relevant quotations attached ☐ Asset Acquisition Request Form (QIS 18853) completed and signed Comments:	Project number: Cost centre: Internal order no.: Q-Contract file no.: *(if applicable)*

Validation of in-house calibrations using Fluke oilbath

Introduction

Thermometer checks and in-house calibrations are performed using a Fluke oilbath as a temperature source.

Temperature readings from working thermometers are compared against the reference thermometer reading, and corrections to working thermometer readings are then calculated and applied.

Depending on the criticality of the working thermometers, some thermometers are sent externally to a NATA accredited laboratory for calibration. Other, less critical thermometers, are not sent for external calibration, and these checks are deemed by NATA as in-house calibrations requiring assessment.

Method

The reference thermometer (used to check/calibrate in-house working thermometers) was compared against the other reference thermometer held by FSS (Omron multi channel data logger).

Temperatures were taken at 0°C, 50°C and 100°C, using 4 of the data logger channels, over 10 days. This generated 40 data points for each temperature setting. These temperatures were selected as they were temperatures at which the Omron data logger was calibrated, and for which there was calibration data.

This data was compared and statistically analysed to determine if there was a significant difference between the two thermometers, and if the methodology for performing the check was sound.

Results

True (corrected) temperature readings from the reference thermometer were compared against the true (corrected) temperature readings from 4 channels of the Omron reference thermometer. Data is included in appendix 1.

Data Analysis

Correlation coefficient, slope and intercept of line of regression was calculated and are shown in figure 1. $R^2 = 1$, with a slope of 0.9989 and a intersect of 0.0124. 95% confidence interval was 0.9999879 and 0.9999942

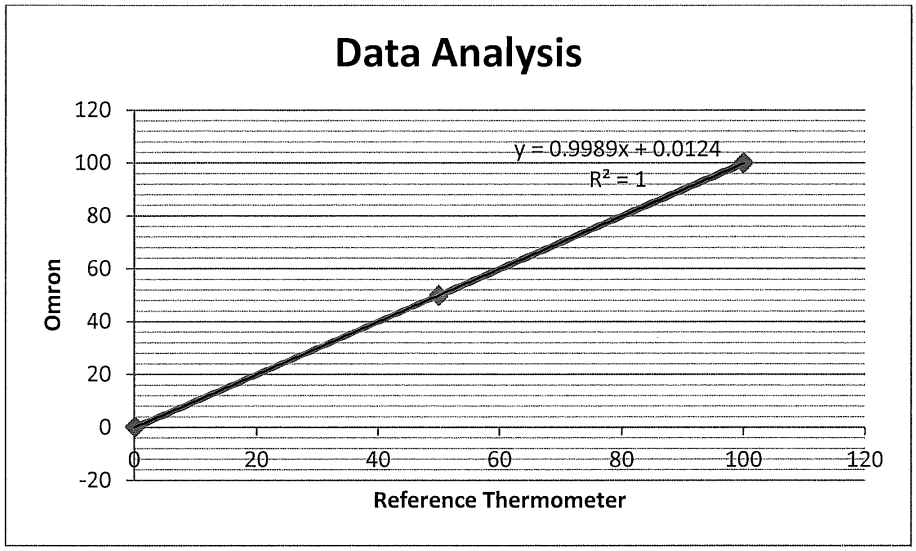


Figure 1 **Correlation coefficient, and slope and intercept of regression line.**

ANOVA was also performed. F critical was 1.70, and F calculated was 0.83

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.460499	39	0.011808	0.832772	0.715464	1.696896
Within Groups	0.56715	40	0.014179			
Total	1.027649	79				

Table 1 **ANOVA**

Conclusion

Given the results of these statistical analyses, it can be determined that there is no significant difference between the corrected temperature readings between the two thermometers, and thus this methodology for measuring true temperature is valid.

.....

Helen Gregg

Quality Manager

14 Feb 2017

Appendix 1 - Data

Reference	Omron		Reference	Omron		Reference	Omron
0.07	0.2		50.03	50		100.02	99.9
0.06	0.3		50.03	50		100.02	100
0.07	0.1		50.03	50		100.02	100.1
0.07	-0.1		50.03	50.2		100.02	100.4
0.2	0.2		50.04	50.1		100.01	100
0.2	0.2		50.04	50.1		100.01	100
0.2	0.1		50.04	50		100.01	100
0.2	0.3		50.04	50		100.01	100
0.17	0.2		50.04	50		100	100
0.17	0.4		50.04	50		100	100
0.17	0.3		50.04	49.9		100	99.9
0.17	-0.1		50.04	49.8		100	100
0.21	0.2		50.01	50		100.01	100
0.21	0.1		50.01	50		100.01	100
0.21	0.1		50.01	49.9		100.01	99.9
0.21	0.4		50.01	49.8		100.01	100
0.13	0.2		50.04	50		100.01	99.9
0.13	0.4		50.04	49.8		100.01	99.9
0.13	0.1		50.04	49.8		100.01	100.2
0.13	0.2		50.04	49.5		100.01	100
0.16	0.2		50.05	50		100.01	100
0.16	-0.1		50.05	49.9		100.01	99.9
0.16	0.2		50.05	49.9		100.01	100
0.16	0.2		50.05	49.7		100.01	99.9
0.16	0.2		50.03	50		100.01	99.9
0.16	0.3		50.03	49.8		100.01	99.9
0.16	0		50.03	49.8		100.01	100
0.16	-0.2		50.03	49.5		100.01	99.5
0.12	0.4		50.03	50		100.02	100
0.12	0.3		50.03	50		100.02	100
0.12	0.3		50.03	50.1		100.02	99.9
0.12	0.3		50.03	49.9		100.02	99.9
0.12	0.4		50.04	50		100	99.9
0.12	0.4		50.04	49.8		100	99.9
0.12	0.3		50.04	49.9		100	99.9
0.12	0.3		50.04	49.6		100	99.9
0.14	0.2		50.04	50		100.01	100
0.14	0.4		50.04	49.8		100.01	99.9
0.14	0.1		50.04	49.9		100.01	100
0.14	0.2		50.04	49.5		100.01	99.5

Welcome to the Work Health and Safety (WHS) and site-specific induction e-learning course for Forensic and Scientific Services (FSS).

The material included is not exhaustive and is not intended to replace the requirement for service providers to have in place their own health and safety systems, policies and procedures.

It is a requirement to **complete this induction prior to commencement of duties on-site** at Forensic and Scientific Services Coopers Plains site, and then undertaken biennially. Breach of these conditions may result in the removal of workers from site. Providing false or misleading information may result in a formal non-compliance.

WORKPLACE HEALTH AND SAFETY

- Our ob igations and responsibi ites
- Your ob igations and responsibi ities
- Risk management
- Safe work practices
- High risk work
- Incidents and emergencies

FSS SITE-SPECIFIC INFORMATION

- Site information and on-site attendance
- Laboratory requirements
- Containment awareness

Mortuary awareness

COMPLETION QUIZ

Comp etion Quiz

Lesson 1 of 11

Our obligations and responsibilites

Our commitment to you

People are the focus of Queensland Health, and our commitment to ensuring the safety, health and wellbeing of all workers including volunteers, students, service providers and other persons, shall be a key underpinning factor supporting the provision of quality public healthcare services.

Safety and wellbeing is driven by:

- everyone having a role to play and being responsible for workplace safety
- an active safety management system that ensures responsibility and accountability
- workplace rehabilitation that promotes recovery and an early and safe return to work
- regular monitoring and review to ensure continual improvement

Queensland Health is committed to WHS compliance throughout the organisation, and expects service providers, sub-contractors and their workers to implement measures to ensure their own safety and the safety of others.

When working on Queensland Health sites, service providers, sub-contractors and their workers must ensure they:

- Have been made aware of any client specific site requirements;
- Have been provided with any information in relation to hazards and risks at or in the vicinity of the workplace where the construction project is to be carried out;
- Have reviewed the Site Asbestos Register;
- Provide trained, competent and timely supervision of all their work activities;
- Complete a site specific induction;
- Implement documented consultation and coordination meetings with all other PCBU;
- Ensure all workers have, and can produce, a current General Construction Induction Card (White Card where required);
- Have and wear correct PPE at all times;
- Are aware of incident and accident reporting procedures;
- Are familiar with any site facilities and amenities, and maintain in good condition;
- Have been shown any loading and unloading areas;
- Are aware of any parking restrictions, and any excluded or restricted areas;
- Are aware that all Queensland Government workplaces are non-smoking sites;
- Report theft of any kind to FSS Contractor Coordinator and the Police;
- Report all incidents to FSS Contractor Coordinator

Duty of care

Under the Queensland WHS Act 2011, persons conducting a business or undertaking (PCBU) have a primary duty of care to ensure, so far as is reasonably practicable, the health and safety of workers engaged to undertake work for them, or whose activities in carrying out work are directed or influenced by them, while the workers are at work in the business or undertaking.

More than one person (i.e. service providers and sub-contractors) can have the same duty and each person must comply with the duty. This is qualified by the extent to which the person:

- Has the capacity to influence and control the matter; or
- Would have had that capacity but for an agreement or arrangement purporting to limit or remove that capacity.

Service providers' and sub-contractors' work activities may overlap and interact at particular times. When they share a duty (e.g. a duty to protect the health and safety of a worker), or are involved in the same work, they will be required to consult, cooperate and coordinate activities with each other so far as is reasonably practicable.

This means that you cannot contract out of your health and safety duties, but can make arrangements with other PCBUs to do the things that will meet the duties on your behalf.

In all cases, you are expected to take reasonable care for your own safety and the safety of others.

The duty of care requires PCBU to ensure:

- The provision and maintenance of a work environment without the risks to health and safety; and
- The provision and maintenance of safe plant and structures; and
- The provision and maintenance of safe systems of work; and
- The safe use, handling and storage of plant, structures and substances; and
- The provision of adequate facilities for the welfare at work or workers in carrying out work for the business or undertaking, including ensuring access to those facilities; and
- The provision of any information, training, instruction or supervision that is necessary to protect all persons from risks to their health and safety arising from work carried out as part of the conduct of the business or undertaking; and
- That the health of workers and the conditions at the workplace are monitored for the purpose of preventing illness or injury of workers arising from the conduct of the business or undertaking.

PCBU wi have other duties under the WHS Act 2011 if they:

- Manage or contro the workp ace or fixtures, fittings or p ant at the workp ace;
- Design, manufacture, import or supp y p ant, substances or structures for use at a workp ace;
- nsta , construct or commission p ant or structures at a workp ace.

CONTINUE

Lesson 2 of 11

Your obligations and responsibilities

Queensland Health is committed to high standards of professional conduct, and honest and ethical business practices. We also have a zero tolerance approach towards fraud and corruption.

It is important for Queensland Health to maintain public confidence in its activities and to safeguard public resources. The reputation of the department rests with the ethical conduct of all those who perform work or other activities associated with the department.

Therefore, we expect an ethical standard of conduct from the people and entities we interact with.

A high standard of conduct and compliance is expected of service providers, sub-contractors and their workers, who are not departmental employees but who perform work or other activities associated with the department.

The expectation of Queensland Health is that all workers show a high level of respect to co-workers, managers, supervisors, visitors and to our customers at all times.

Your Obligations

Not cause harm	You should take reasonable care for your own health and safety; and that your acts or omissions do not adversely affect the health and safety of others
Be fit for work	You are expected to be fit for work. This means that you should not attend work while affected by drugs, alcohol or fatigue.

Comply with WHS instructions	You must cooperate with any reasonable instruction given by the facility where you carry out work to ensure compliance with the WHS Act. Additionally comply with health and safety policy/procedures that Queensland Health has provided you
Report WHS concerns and incidents	You must report all hazards, near misses and incidents by completing an incident report and speaking with FSS Contractor Coordinator
Participate in WHS communications	WHS consultation protocols and procedures between you and the accountability area must be as per the contract agreement. Consultation should be undertaken throughout the lifetime of the work and should involve health and safety representatives. You will be given reasonable opportunity to express your views, raise issues and contribute to decision making processes.

Follow the Code of Conduct for the Queensland Public Service

You must conduct yourself in accordance with the Queensland Government's Code of Conduct for the Queensland Public Service.

Comp ete the "c ick-to-flip" content above before moving on.

Unacceptable workplace behaviours

Queensland Health is committed to preventing unacceptable workplace behaviour and expects all employees, service providers and sub-contractors to:

- Foster a consultative and cooperative work environment;
- Display integrity and impartiality
- Maintain appropriate standards of behaviour in the workplace at all times;
- Improve the lines of communication with management, other employees and clients;
- Treat all people with respect and dignity;
- Address all problems in a constructive and open manner.

Attributes or ground for discrimination include,

Discrimination

but are not limited to:

- Age
- Gender
- Religion
- Ethnicity
- Marital status
- Sexual preference
- Pregnancy (or potential pregnacy)
- Disability or impairment

1 of 3

Harassment

Behaviour that can be considered harassment includes

- Displaying unsuitable or offensive material
- Making offensive jokes, remarks, gestures or other communications
- Any action or behaviour that may be inoffensive to one person but offensive and/or intimiating to another

Note that unintentional or misinterpreted behaviour may cause feelings of harrassment.

2 of 3

Bullying

Behaviour that can be considered bullying includes

- Verbal abuse
- Excluding or isolating workers
- Intimidation

- Assigning meaningless tasks unrelated to the job
- Giving workers impossible assignments
- Deliberately withholding information that is vital for effective work performance

IMPORTANT:

Queens and Hea th wi not to erate any form of un awfu discrimination or harassment. Service providers and sub-contractors who are found to have engaged in the above wi be subject to breach action and may be iab e under State or Commonwea th discrimination aws (for examp e, under the Anti-Discrimination Act 1991 (Q d)).

Comp ete the "c ick-to-flip" content above before moving on.

Your responsibilities

As a service provider or sub-contractor, you are responsible for complying with Queensland Health processes so we meet our safety responsibilities and you fulfil your legal responsibilities for safety.

Service providers are responsible for:

1. Providing documented safe systems of work before work commences
2. Managing and controlling the risks and hazards associated with your and your sub-contractors' activities and services during the project
3. Obtaining FSS' written approval before engaging any sub-contractor
4. Providing suitable and safe plant, tools, equipment and personal protective equipment (PPE)
5. Ensuring you, your sub-contractors and their workers have the appropriate licenses, qualifications and training for the work you will be undertaking
6. Not placing yourself, anyone else, or the environment at risk

7 Reporting WHS hazards and incidents immediately to FSS Contractor Coordinator

CONTINUE

Legislative requirements for licensing and certification

1 **Building work:** Whilst completing building work you must have and maintain a current QBCC Licence for the specific building work and tender under its licenced name, as defined by the Queensland Building and Construction Commission Act 1991.

2 **Electrical work:** You must have an Electrical Contractor's Licence to undertake all electrical work as required by the Electrical Safety Act 2002 and Electrical Safety Regulation 2013.

3 **Plumbing and drainage:** You must have a plumbing and drainage licence to undertake all plumbing and drainage work, as required by the Plumbing and Drainage Act 2018.

4 **Asbestos:**
Friable: For friable asbestos work in any quantity you must possess a Class A asbestos removal business licence issued by Workplace Health and Safety Queensland. All workers on site must be accredited in the VET course CPCCDE3015A - Remove friable asbestos.

Non-Friable: All workers must be trained, as a minimum, in asbestos-related work (asbestos identification, safe handling and suitable control measures) as specified in the Work Health and Safety Regulation 2011 and Code of Practice How to Manage and Control Asbestos in the Workplace 2011. Certified training can include VET course CPCCDE3014A – Remove non-friable asbestos.

5 **Construction work**: Under the Queensland Work Health and Safety Regulation 2011 all workers are required to possess a current General Construction Induction Training Card (White Card).

6 **High risk work**: You must not carry out a class of high risk construction work unless you hold a high risk work licence for that class of high risk construction work (as prescribed in the Work Health and Safety Regulation 2011).

CONTINUE

Health Safety and Environmental Considerations

It is a statutory requirement that all service providers, sub-contractors and their workers, comply with all current legislation, including WHS legislation when providing works and services. In Queensland this includes, but is not limited to the:

- Work Health and Safety Act 2011;

- Work Health and Safety Regulation 2011;
- Code of Practice How to Manage and Control Asbestos in the Workplace 2011;
- Code of Practice How to Safely Remove Asbestos 2011;
- Other current Codes of Practice as appropriate;
- Electricity Act 1994;
- Electrical Safety Act 2002;
- Electrical Safety Regulations 2013;
- Worker's Compensation and Rehabilitation Act 2003.

CONTINUE

Children and Animals

In the event that a child needs to be brought to the workplace, a request for approval must be made to FSS Contractor Coordinator. The risks associated with bringing a child into the workplace will be assessed prior to granting approval.

Children in the workplace must be managed in accordance with the Children and Young Works Code of Practice 2006.

Animals are prohibited from Queensland Health facilities unless the animal is an assistance animal or guide dog.

CONTINUE

Lesson 3 of 11

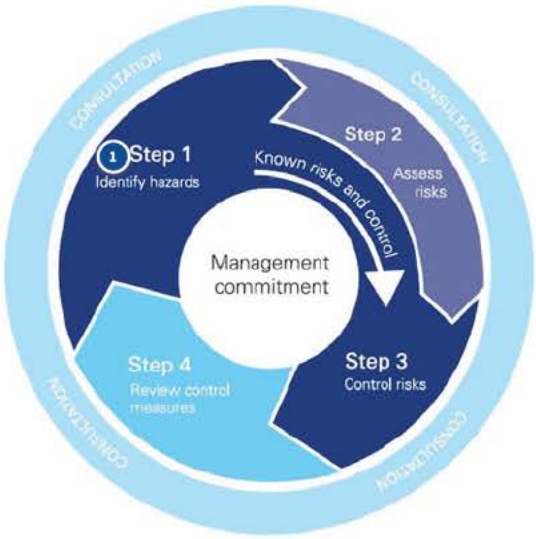
Risk management

Risk management is a continuous process, and when working for Queensland Health, you are expected to conduct documented risk assessments and implement risk management procedures and processes to ensure your activities do not put workers and other persons at risk of hazards.

For service providers, evidence of this must be supplied in the Safe Work Method Statement (SWMS) or Safe Operating Procedures (SOP), for the activity. Risk assessments must be available at the workplace at all times.

The ultimate goal of risk management is to eliminate hazards and associated risks. If not practicable to do, then develop and implement control measures, manage and reduce the risk of injury, illness or death to the lowest level as reasonably practicable.

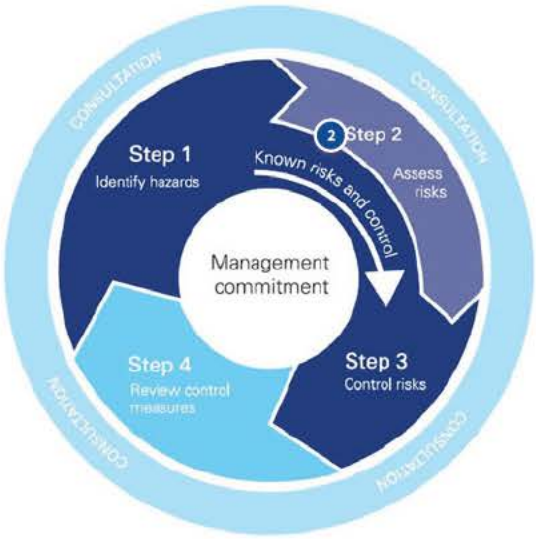
Risk:	**Hazards:**
Risk is the possibility (likelihood) that harm (death, injury, illness) might occur when exposed to a hazard.	A situation or thing that has the potential to harm a person. Hazards that may be present in Queensland Health facilities include: Chemical (hazardous materials); Physical / Environmental (lifting or carrying); Psychological (workload, personal conflict); or Biological (infection control).



Step 1: Identify the hazard

Hazard identification is the process of identifying potential hazards associated with your work activities, processes, products, services and places of work.

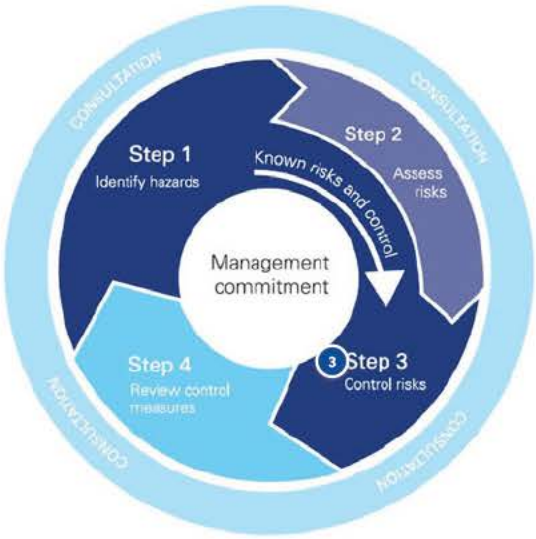
It is your responsibility to assist in identifying and reporting such hazards.



Step 2: Assess the risk

Once a hazard has been identified, a risk assessment should be conducted in consultation with workers, contractors, sub-contractors and other relevant stakeholders.
This step involves:

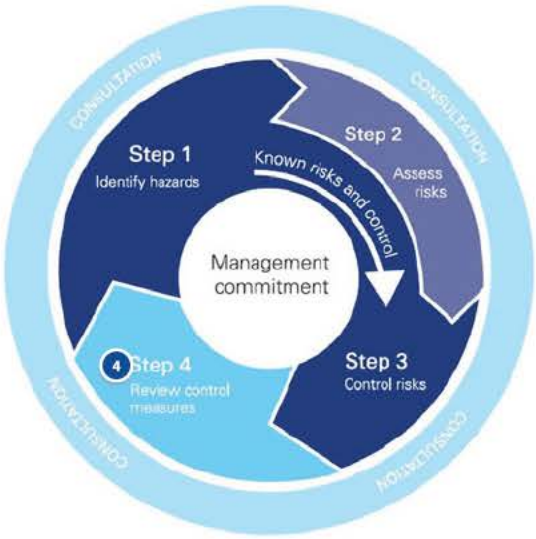
- Determining the likelihood that an incident will occur;
- Determining the consequences of the incident.



Step 3: Control the risk

Whenever possible, the hazardous item or work practice should be eliminated. If elimination of the risk is not possible, alternative risk reduction controls should be applied according to the hierachy of controls:

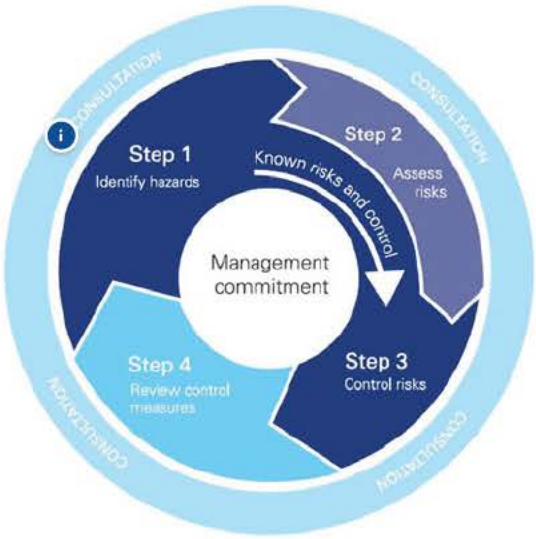
- Substituting (wholly or partly) the hazard with something that gives rise to a lesser risk;
- Isolating the hazard from any person exposed to it;
- Implementing engineering controls;
- If a risk then remains, the duty holder must minimise the remaining risk, by implementing administrative controls;
- If a risk then remains, the duty holder must minimise the remaining risk, by ensuring the provision and use of suitable personal protective equipment (PPE).



Step 4: Monitor and Review

After implementing a control measure, it should never be assumed that the control is effective. Regular reviews are required to ensure that the controls developed and implement are appropriate and that the hazard has been eliminated.

- Look for identified, residual and secondary risks
- Identify any new risks
- Take quick corrective action when a risk materialises
- Plan further preventative actions when you identify a trend of a new risk
- Measure the effectiveness of risk responses



Consultation

Consultation with works and their health and safety representatives is required at each step of the risk management process.

Consultation involves sharing of information, giving workers a reasonable opportunity to express views and taking those views into account before making decisions on health and safety matters *(Sections 46, 47, 48 WHS Act 2011).*

Open and read each marker on the above infographic before moving on.

Further detai s: Work hea th and safety consu tation, co-operation and co-ordination Code of Practice 2011.

Knowledge Check: When should you engage in the risk management process?

- [ ] Before any new task is undertaken
- [ ] Whenever new hazards are identified
- [ ] After an incident has occurred

- [ ] When signigicant changes are made to work practices or systems

SUBM T

Comp ete the "Know edge Check" above before moving on.

Lesson 4 of 11

Safe work practices

Key risks and hazard exposures within healthcare

Musculoskeletal risks and manual tasks

Some manual tasks are hazardous and may cause musculoskeletal disorders.

Manual tasks must be managed in accordance with:

- Part 4.2 of the WHS Regulation 2011
- Hazardous manual tasks Code of Practice 2011

Prior to commencing manual tasks, ensure you have been trained in any safe work procedures including the use of lifting or handling aids/ equipment.

There are four steps to complete in order to safely perform a manual task:

PLAN	Assess the load, equipment, environment and people and make a plan for how the load can be safely moved or handled.
PREPARE	Remove obstacles and clutter. Adjust the working height.
DO	Use safe postures and movements when doing the taks, keep the load close and avoid twisting/bending.
REVIEW	Ask "did it work?" or "could it be done better next time?". If you experience any signs/symptoms of musculoskeletal disorders (e.g. pain, tingling, aches, swelling etc) from doing a manual task, you should report this as early as possible.

Biological risk

- Exposure to infectious agents and blood and bodily fluids
- Needle stick injuries
- Handling of biological material in research laboratories, etc. handling of infectious waste
- First aid activities
- Poor security of biohazard areas (e.g. virology laboratories, isolation rooms).

***Sharps** are objects or devices with sharp points / cutting edges that are capable of cutting or piercing the skin. Within the health care environment, sharps such as hypodermic needles and scalpel blades may carry an additional biological risk.*

If discarded sharps are found, you must notify your supervisor or FSS Contractor Coordinator immediately. You must not touch the sharp and ensure no other persons are exposed to the risk. If a sharps injury occurs you should seek first aid immediately and follow the incident reporting protocol. If you use sharps (e.g. to treat diabetes), you must dispose of the used sharps in an approved sharps container.

Chemical risk

Take care to avoid contact with hazardous chemicals.

Exposure can occur through accidental:

- inhalation
- ingestion
- skin contact

Follow Safety Data Sheets (SDS) for guidelines and instructions.

FSS has a Hazardous Goods Lift Operations in Block 4 and Block 10 (note this requires additional training prior to use)

Slips trips and falls risks

Slips, trips and falls are a leading cause of injury in Queensland Health workplaces. Slips, trips and falls hazards are found in all workplaces including at the entry of a building, outdoor working environments, offices, laboratories and where work is carried out at height.

A slip or trip without a fall, can result in a musculoskeletal injury. It can also trigger a domino effect which can result in multiple persons being injured and also damage to property.

A fall includes any fall by a person from one level to another and no longer applies only to working at heights. Falls resulting from slips, trips or unsafe working at heights practices can result in a range of injuries from minor sprains or strains to serious bone fractures or back injuries.

Comp ete the content above by opening and reading a accordion tabs before moving on.

Work Environment

Point 1

Housekeeping

The workplace must be maintained and housekeeping managed to eliminate the risk of slips, trips and falls. This is to ensure all workers can enter, exit and move without risk to their health and safety. You have a responsibility to help maintain all work areas in a safe and tidy condition, which includes ensuring that:

- all means of access and egress (i.e. exit) are safe and clear
- general safety signs are erected when required and are kept in good condition
- safe storage areas for materials and plant are provided
- protruding objects do not pose a hazard

Point 2

Signage

Appropriate safety signage must be displayed around the perimeter of the site, which includes, but is not limited to:

- Service provider details / name;
- Phone numbers (including a 24 hour number);
- Personal Protective Equipment (PPE) requirements.

Point 3

Infection Control

Where infection control policies and procedures are in place to prevent or minimise the risk of disease transmission, these will be advised to you. All infection control policies and procedures must be strictly adhered to.

Point 4

Air Quality and Hazardous Atmosphere

Air quality can be impacted by factors such as paint fumes, dust and sprays. You must take precautions, where practicable, to minimise adverse impacts to air quality.

You must ensure that any substances or mixtures brought into the workplace do not exceed exposure standards, for that substance, when in use.

Gas, vapours, mists or fumes can prove hazardous to health or provide flammable and explosive concentrations when exposed to ignition sources and must be adequately controlled.

Point 5

Noise

The effects of noise are cumulative; however the following noise exposure limits will guide you as to the amount of time that you can be safely exposed to noise before your hearing is at risk:

- 85 dB(A) - 8 hours88
- (A) - 4 hours
- 91 dB(A) - 2 hours
- 94 dB(A) - 1 hour
- 97 dB(A) - 30 minutes
- 100 dB(A) - 15 minutes

The noise emission levels of all equipment brought on-site must be identified prior to work commencing. If the emission levels exceed the legislated exposure standard for noise, steps must be taken to adequately control exposure to workers and others.

FSS Contractor Coordinator must be advised so as to ascertain the impact on workers and others within the facility. Pending consultation with impacted stakeholders, the FSS Contractor Coordinator reserves the right to prohibit or restrict the use of equipment that has been identified as posing a noise hazard.

Devices with headphones must not be used if these are likely to pose a safety risk.

Noise must be managed in accordance with:Part 4.1 of the WHS Regulation 2011the Managing noise and preventing hearing loss at work Code of Practice 2011

Point 6

Waste Management

You are responsible for ensuring your waste is disposed of in the correct manner. This means that you should:

- Not use ordinary rubbish bins for construction and demolition waste;
- Dispose of hazardous waste in accordance with relevant legislative requirements;
- Reduce or recycle waste, where possible;
- Ensure the cleaning of equipment does not result in discharge of pollution into waterways or drains;
- Ensure chemical waste is handled with care and is never disposed of down a sink, onto the ground or into a storm water drain.

Waste categorised as regulated waste must be disposed in accordance with the requirements of the Environmental Protection (Waste Management) Regulation 2000.

C ick the next arrow to read each point before moving on.

Personal Protective Equipment (PPE)

PPE is a control measure under the *Hierarchy of Controls* and is mandatory on all Queensland Health sites.

It is your responsibility to supply your workers with the required PPE and ensure it is worn at all times when designated on site or required under an SWMS.

PPE requirements may include one or more of the following types of PPE depending on the work being carried out and identification of hazards from risk assessments.

Eye protection must be worn for any task where there is a risk of foreign objects or chemicals entering the eyes (e.g. cutting and using power tools).

Hard hats must be worn where objects may fall or where your head may strike stationary objects.

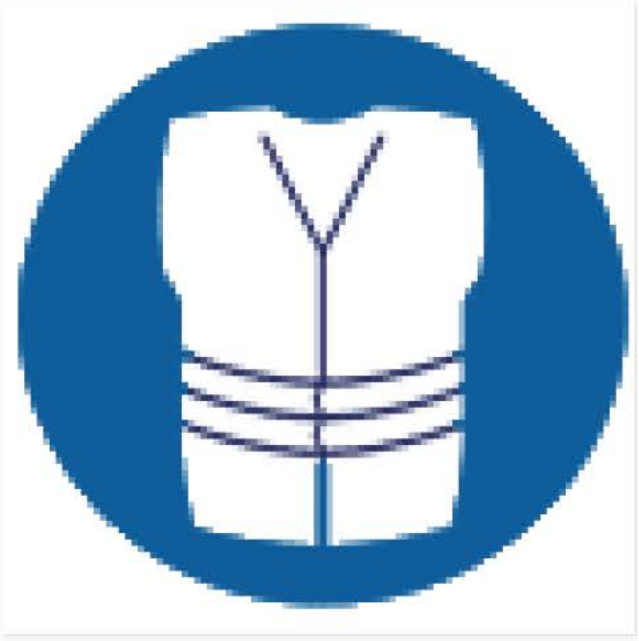
Respirators or dust masks must be worn in dusty conditions or where contaminants present an inhalation risk. Workers must be face fit tested and certified to use respiratory protective equipment (RPE).

Hearing protection must be worn if noise levels are likely to exceed the exposure standard.

Safety gloves must be worn where contact with hazards may damage the skin or allow contact with chemicals, or where contact with the hazard may affect your grip.

Protective work clothing must be worn where chemicals, heat or cold, sharps, or other hazards (such as UV) could damage the skin.

Safety Fotowear (Type 1) with steel or composite toe caps (to Australian Standard) must be worn when working on any site.



High Visibility Clothing must be worn when working on or near roads, and in any situation where high visibility of work presence is required

IMPORTANT: PPE must comp y with the re evant Austra ian Standards.

PPE must be suitab e with regard to:

- The nature of the work and its associated hazards;
- Appropriate size, fit and comfort;
- Maintenance, repair, or rep acement as required.

nformation, training and instruction must be provided to ensure the proper use, wear, storage and maintenance of a PPE. A workers must use / wear PPE and not intentiona y misuse or damage it.

Comp ete the "c ick-to-flip" content above before moving on.

Sun exposure and heat stress

If you are working outdoors you should wear and use appropriate sun protection to guard against UV exposure, including:

- sunscreen
- protective clothing
- hats
- sunglasses

Where the working environment is likely to expose workers to elevated temperatures for prolonged periods control measures to manage heat stress must be implemented and the facility's responsible officer must be advised.

For more information, please refer to the Queensland Government's Sun Safety Website

CONTINUE

Peformance Monitoring

Your WHS performance will be monitored by the FSS Contractor Coordinator to ensure legislative requirements are met. Monitoring may be undertaken through such measures as:

- Regular site inspections
- A review of hazards and risks
- Follow-up on corrective actions where non-conformances have been identified
- Reviews of incident or third-party reports
- Regular meetings

If it is identified that WHS requirements are not being met, work will be suspended until the matter is adequately addressed.

CONTINUE

Lesson 5 of 11

High risk work

For some hazardous activities, specific control measures, including permits, are required in legislation and when working for Queensland Health, to help ensure hazards and risks are adequately managed.

High Risk Work

You must not carry out high risk work unless you hold a high risk work licence for that class of work (as prescribed in the Work Health and Safety Regulation 2011).

A service provider must not direct or allow a worker to carry out high risk construction work for which a high risk work licence is required unless they see written evidence that the worker has the relevant high risk work licence.

High Risk Work 1

Asbestos

Government buildings managed or controlled by government departments maintain strict procedures for any works likely to disturb asbestos. service providers, sub-contractors and their workers must familiarise themselves and strictly follow any site specific procedures in addition to the following:

- All asbestos work is classed as high risk and, as such, all service providers, sub-contractors and their workers must be suitably qualified to carry out relevant works involving the disturbance of asbestos, namely:
    - Removing friable asbestos;
        - In order to remove friable asbestos, you must possess a Class A asbestos removal business licence issued by Workplace Health and Safety Queensland.
        - All workers require a VET Competency, CPCCDE3015A - Remove friable asbestos.
        - Supervisors require a competency CPCCBC4015A - Supervise asbestos removal.
    - Removing non-friable asbestos;
        - In order to remove non-friable asbestos you must possess a Class A or Class B asbestos removal business licence issued by Workplace Health and Safety Queensland.
        - All workers require a VET Competency, CPCCDE3015A - Remove friable asbestos or a VET Competency, CPCCDE3014A - Remove non-friable asbestos.
        - Supervisors require a competency CPCCBC4015A - Supervise asbestos removal.
    - You must retain and present on demand evidence that this training has been conducted, completed and is current. These training records will be inspected by FSS Contractor Coordinator.

Asbestos registers must be consulted before any works are carried out to determine the presence and location of ACM. FSS will require a Work Permit, often called a Work Area Access Permit (WAAP), to be completed and countersigned before any works can commence.

Both the Register and the WAAP are issued by FSS Contractor Coordinator. If either of these documents are not available, you must contact and review the situation with your FSS Contractor Coordinator before any works can commence. If work has commenced, any service provider, sub-contractor or their worker, who discovers the presence of any material which may contain asbestos or any other hazardous substance must immediately cease work and report their finding to FSS Contractor Coordinator.

Legislation:

- *Chapter 8 of the WHS Regulation 2011*
- *How to manage and control asbestos in the workplace Code of Practice 2011*
- *How to safely remove asbestos Code of Practice 2011*

High Risk Work 2

Compressed air

Compressed air is air that has been stored under pressure.

- It has the potential to cause serious injury, especially to the eyes and ears.
- If air is directed towards the body and the force of it punctures the skin, or enters the body by an open wound, it can cause an air bubble to quickly travel to vital organs of the body such as the heart, lungs or brain. This is life threatening.
- All compressed air hose connectors and other pressure hoses must have an appropriate type of safety clip fitted to prevent accidental disconnection whist operating under pressure.
- A hose under pressure can whip around and cause serious injury if not held securely. Do not turn the air on until you have a secure grip on the hose.
- Compressed air is used to power tools such as air powered nail guns, this equipment must have safety devices fitted and be operational to the manufacturer's specification.

High Risk Work 3

Confined Spaces

Service providers, sub-contractors and their workers, may only enter a confined space if they have been trained or accredited in confined space entry procedures.

If you are required to enter a confined space, you must:

- Obtain a Confined Space Entry Permit from FSS Contractor Coordinator before commencing work;
- Undertake a pre-entry risk assessment prior to entering the confined space and include a rescue plan;
- Complete all work in accordance with WHS regulations and Australian standards;
- Ensure a standby person is present at all times to give assistance if required

All work requiring entry into confined spaces must be performed in accordance with: Chapter 3, Part 4.3 of the WHS Regulation 2011 the Confined spaces Code of Practice 2011.

High Risk Work 4

Demolition work

Service providers and sub-contractors proposing to carry out any of the following demolition work, must ensure that written notice has been given to the regulator at least 5 days before the work commences. This includes:

- Demolition of a structure, or part of a structure that is load-bearing or otherwise related to the physical integrity of the structure, that is at least 6 metres in height;
- Demolition work involving load-shifting machinery on a suspended floor;
- Demolition work involving explosives.

You must hold a current licence to carry out demolition work at a workplace. Similarly, you must not direct or allow a worker to carry out demolition work unless the worker holds a current licence to carry out demolition work. Documented training specific to the demolition work and to the site should also be provided to workers by a competent person.

High Risk Work 5

Driver Safety

If you are required to drive at the workplace or site, you must abide by road and safety rules. You should:

- comply with all road rules, including any local site rules;
- park legally and have regard for the needs of other workplace users;
- observe all speed limits including those specific to the FSS site

High Risk Work 6

Electrical Safety

If not managed, maintained, fit for purpose or used correctly, all electrical equipment and appliances have the potential to cause serious shock, burns and electrocution.

On all work sites service providers and sub-contractors must ensure:

- Only appropriately licensed and qualified electricians perform electrical work;
- Electrical equipment is tested and tagged in accordance with Australian / New Zealand Standards before being brought onto site;
- Damaged or faulty equipment is reported and immediately taken out of service;
- Residual Current Device (RCD) safety switch protection is used for high risk portable electrical equipment and electrical equipment used in hostile conditions.

Managing electrical risks

Before starting work on or near electrical installations or services (including those in ceiling spaces), you must complete a risk assessment (considering damaged cables, live building elements, solar panels and other sources of electricity) and implement appropriate controls to manage risks from electricity (e.g. safe work method statement, turn off electricity before starting work, not walking on electrical cables).

Live work

Generall, live work (other than low risk testing) is NOT to be conducted on any site of equipment and must only b e undertaken as a last report. If required to undertake live work, you must:

- Obtain a Live Work Permit from FSS Contractor Coordinator;
- Complete SWMS

- Consult with stakeholders

High Risk Work 7

Excavation, trenching and breakthrough

You must obtain current underground essential services information before directing or allowing any excavation work to commence - Dial Before you Dig. Underground detection equipment may also be used.

The risks associated with excavations include a person:

- Falling into an excavation;
- Being trapped by the collapse of an excavation;
- Working in an excavation being struck by a falling thing;
- Working in an excavation being exposed to an airborne contaminant.

For any excavations, you must ensure that the work area is secured from unauthorised access, including inadvertent entry. A SWMS must be prepared for excavations greater than 1.5 metres deep or other high risk construction work identified in conjunction with the excavation.

All excavation and trenching work must be performed in accordance with: Chapter 6, Division 3 of the WHS Regulation 2011 the Excavation work Code of Practice 2013.

High Risk Work 8

Falls and Working at Heights

Falls from height present the highest risk of fatalities and serious injury in the construction industry. Any change in height from one level to another, which could result in an injury from a fall, must be controlled.

Working at heights is generally described as work conducted at 2 metres (3 metres in domestic construction) or higher. This can include work on roofs, scaffolding, suspended ceilings, ladders and elevated work platforms.

Any specialised access equipment must be erected or used by suitably licensed or competent persons.

If you are required to work at heights of 2 metres (3 metres in domestic construction) or more, you must conduct a risk assessment and supply a SWMS. The risk assessment must consider the task and all the associated hazards.

Any workers performing work at heights must be trained in any safety equipment and systems required for the task and have the appropriate licences and qualifications. If a safety system or equipment is required, no work must commence until the system or equipment is in place.

Hazards that may give rise to a fall must be identified and controlled in accordance with: Part 4.4 and applicable sections in Chapter 6 of the WHS Regulation 2011 the Managing the risk of falls at workplaces Code of Practice 2011.

High Risk Work 9

Fire System Isolation

The inadvertent activation of a fire alarm (i.e. an unwanted alarm) from work involving the emission of dus, aerosols, smoke or heat must be prevented.

You must notify FSS Contractor Coordinator of your requirements for fire alarm system isolation to ensure the system has been isolated prior to work commencing. De-isolation requirements must also be notified accordingly.

PLEASE NOTE: You will be liable for all unwanted fire alarm activation costs incurredas a result of your failure to notify FSS Contractor Coordinator of your fire alarm system isolation requirements.

High Risk Work 10

Hazardous chemicals/ dangerous goods

You must manage and control hazards and risks associated with hazardous chemicals brought onto and stored on site, including:

- Maintaining a register of all hazardous chemicals;
- Ensuring current Safety Data Sheets (SDS) and risk assessment are available at point of use;
- Ensuring all chemicals are correctly labelled;
- Providing adequate storage;
- Ensuring appropriate spill kits are available, that your works know of their location and how to use them;
- Ensuring first aid measures are available;
- Ensuring that subcontractors and their workers are trained in the safe handling of chemicals;
- Following all appropriate PPE requirements;
- Adhering to relevant legislation and requirements when considering the transport and disposal of materials.

High Risk Work 11

Hot works

You must obtain an approved hot work permit from FSS Contractor Coordinator prior to the commencement of work.

The permit is only valid for the allocated period of time and will detail the control measures that need to be implemented to control any related hazards.

A copy of the permit must be displayed at the work site at all times. FSS Contractor Coordinator must be notified immediately of any changes or extensions to the permit.

Hot work areas must be isolated from combustible materials and adequately ventilated to prevent the build-up of fumes and gases.

Hazardous areas surrounding the hot work area must be isolated or otherwise controlled so as to prevent the ignition of any materials that may be harmful to people, property or the environment.

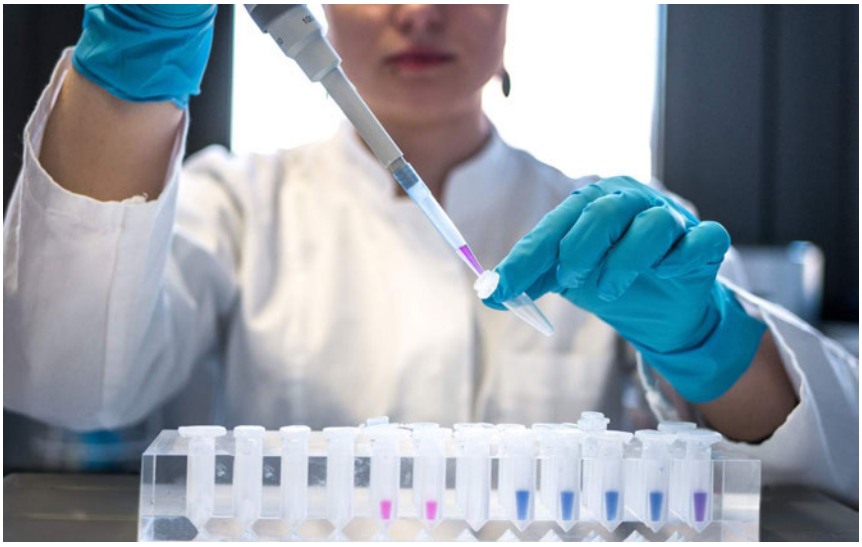
All welding equipment brought on-site for hot work must have:

- oxygen / acetylene cylinders
- flashback arresters at both the hand piece and regulators
- hazard reduction device (HRD) on all alternating current welding equipment
- regular testing

Fire system isolation must be implemented as per the details outlined in the "Fire System Isolation" section.

High Risk Work 12

Laboratories



When working in laboratories, you must:

- obtain permission from the laboratory manager to enter the laboratory
- only handle or move equipment, chemicals and other materials under the instruction / supervision of the laboratory manager.

Fume cabinets or chemical store ventilation must only be isolated by arrangement with the laboratory manager and FSS Contractor Coordinator.

Fume cabinet extraction fans must not be isolated before tagging out all affected laboratory fume cabinets to prevent their use.

Laboratory staff must be advised of any work to be undertaken on a fume cabinet.

High Risk Work 13

Lead processes/ work

You must send notification of a lead risk job to Worksafe Queensland within 7 days, after a risk assessment identifies a new, or confirms an existing, lead risk job.

If conducting work that exposes workers to lead (e.g. lead based paint removal), you must have the relevant certification and an approved SWMS to carry out the removal work.

High Risk Work 14

Plant and equipment

Plant can include, but is not limited to:

- electrical equipment
- lasers
- explosive power tools
- mobile mechanical plant
- compressed air equipment
- scaffolding

All plant and equipment to be brought into the workplace must:

- Be registered (if required), with evidence of current registration
- Be fit for purpose;
- Be tested and tagged;
- Be maintained in good working condition;
- Have all safety devices and guards fitted;
- Be operated only by suitably qualified, licensed, competent and trained persons;
- Be secured when not in use.

Plant brought on-site must be managed in accordance with: Chapter 5 of the WHS Regulation 2011, the Managing the risks of plant in the workplace Code of Practice 2013 any other codes of practice and standards relevant to specific types of plant.

High Risk Work 15

Reticulated compressed oxygen

FSS site buildings have the additional risk of reticulated compressed oxygen and pipes held at a vacuum.

- Extreme caution is necessary when working on or in the vicinity of compressed oxygen/air and/or vacuum systems.
- Lock out / tag out procedures must be followed where work activities will risk injury to personnel or damage to equipment

High Risk Work 16

Traffic Management

You must provide notification to FSS Contractor Coordinator of any work that may impact on traffic (vehicular or pedestrian), prior to the commencement of work. Where required a traffic management plan should be prepared. Planning for the work must consider the:

- accessibility for emergency vehicles
- protection of workers and other persons present or likely to be present in the area
- provision of adequate warning of changes in surface conditions
- instruction for road users and their safe guidance through, around or past the work site, including appropriate signage and barricading
- safe access and egress (i.e. exit) to and from the work site
- speed restrictions apply to all vehicles on-site and pedestrians ALWAYS have right of way.

If you are working as a traffic controller, you must have your Traffic Controller Accreditation Scheme identity card issued by the Department of Transport and Main Roads on you at all times.

All work impacting on traffic must be performed in accordance with the Traffic management for construction or maintenance work Code of Practice 2008.

C ick the next arrow to read each point before moving on.

Lesson 6 of 11

Incidents and emergencies

All incidents, injuries and emergencies, regardless of severity, must be reported to the FSS Contractor Coordinator.

You must investigate serious incidents and provide your own incident report to the FSS Contractor Coordinator. FSS records all WHS incidents in its RiskMan recording system.

In the event of a Notifiable Incident (as described in the WHS Act QLD 2011), this must also be reported to WorkSafe Queensland. In such cases, care must be taken to not disturb the incident site in the event that an investigation must be conducted.

If you are a QBCC licensee, you must also notify QBCC in the event of a Notifiable Incident.

Costs associated with medica treatment or absence from work as a resu t of injury or i ness sustained in the workp ace are the responsibi ity of the contracted person or business.

CONTINUE

Emergency procedures

You must comply with all instructions given during an emergency evacuation of the work site / facility.

Service providers and sub-contractors should implement an emergency plan and procedures at a workplace based on:

- The nature of the work being carried out at the workplace;
- The nature of the hazards at the workplace;
- The size and location of the workplace;

- The number and composition of the workers and other persons at the workplace.

In the event of an emergency call 000. For mobile phones, dial 112 which will access the satellite emergency network.

CONTINUE

First aid

Service providers, sub-contractors and their workers who are injured at work should seek first aid, and notify FSS Contractor Coordinator as soon as practicable.

Service providers and sub-contractors are responsible for providing their own first aid resources at the worksite, including:

- **The provision of first aid equipment;**
- **That each of their workers has access to the equipment;**
- **An adequate number of their workers are trained to administer first aid.**

If emergency treatment is required, call an ambulance and notify FSS Contractor Coordinator.

Health and safety should always be your top priority. It is important that you follow all relevant safety policies and procedures while working.

CONTINUE

Lesson 7 of 11

Site information and on-site attendance

39 Kessels Road, Coopers Plains

Smoke free

Alcohol and Drug Free

Secure Government site (level 3)

If you are required to take prescribed medication that may affect your work performance, you must inform FSS Contractor Coordinator prior to commencing work.

The highest level of confidentiality must be maintained at all times

Whilst on campus, you may be exposed to

- Commercial and proprietary information about clients

- Clinical information
- Forensic information
- Coronial information

If you inadvertently hear or see confidential information, you are not to disclose it without appropriate consent.

This includes unauthorised photography

CONTINUE

Restricted areas

Include, but are not limited to:

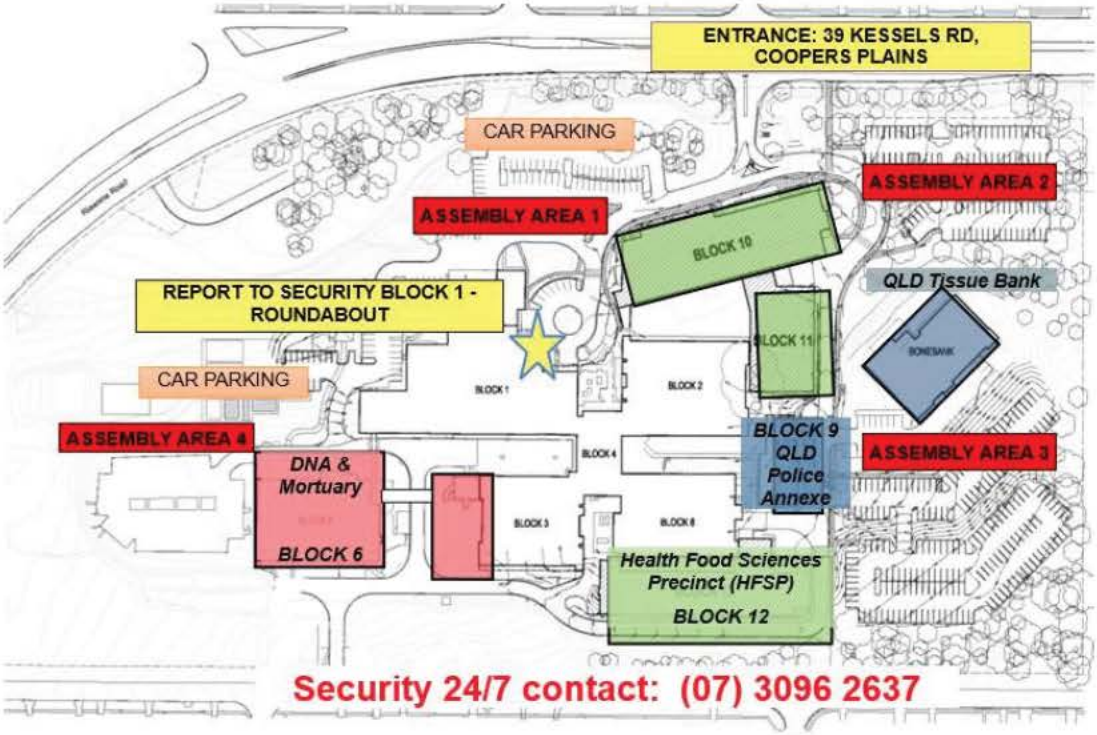
Unauthorised personnel must not enter **restricted areas**

- Public Health Microbiology and Virology containment areas
- Forensic Pathology - Mortuary
- Forensic Chemistry
- Forensic DNA Analysis
- Radiation and Nuclear Science laboratories
- Queensland Government Veterinary Diagnostic laboratory, including a PC3 rated laboratory in Block 12

Your actions cou d compromise your own hea th and safety and that of others.

Organisationa pena ties may a so be imposed if breaches occur.

CONTINUE



FSS site map – 39 Kessels Road, Coopers Plains

When you first arrive, please sign in at the security desk at the front entrance.

The front entrance is behind the roundabout with the flag pole – designed by the star on this map.

Prior to arriving on site, you must;

- Successfully complete this induction (including supplying VPD evidence and Criminal History check evidence)
- Provide 24hrs notice prior to attendance
- Supply
    - Relevant licenses
    - Relevant work permits
    - Work method statement/s
        - Work method statements are a document that details how an activity will be undertaken safely. It is developed through consultation and breaks down the job into key steps.
    - Relevant Safety Data Sheets (SDS)
    - Notice of any isolation requirements or impacting activities
    - Any other safety information or documentation requested by FSS

Hours of access are 0730 - 1600 Monday to Friday
Outside of these hours must be by prior written agreement only

Whilst on-site

- You must **sign-in** and **sign-out** at security desk (Block 1) every time you enter and exit the site. This includes leaving the site for lunch.
- You must wear the contractor pass (given at the security desk) in a highly visible location at all times
- You may require a staff escort for high risk/restricted areas

Access cards and keys will only be issued to inducted and CHC service providers

Workwear on-site

- Uniforms/clothing must not be torn/ripped or unclean
- Footwear must be fully enclosed, no-slip and waterproof
- Long hair is to be tied up
- Photo ID can be requested at any time

Ensure all open wounds (including new tattoos) are covered with a waterproof dressing prior to coming on site. If you require a new waterproof dressing, please ask.

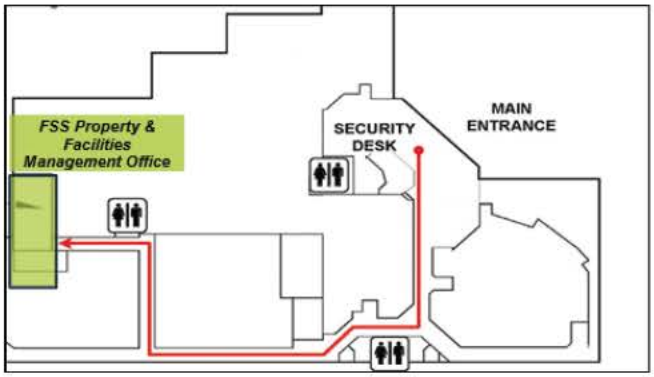
Work Orders

Receiving work order:

1. Attend Property and Facilities Management (P&FM) Block 1
2. Complete applicable permits (P&FM to sign-off)
3. Have work area and safety equipment inspected

Completing work order:

1. Return any keys
2. Have work order signed off by P&FM (or lab staff if scientific equipment)
3. Leave completed service sheets with P&FM (or security if after-hours)



Comp ete the content above by opening and reading a accordion tabs before moving on.

Impacting activities

Impacting activities are any works that may adversely affect key utilities or site equipment at any time.

On site, this includes:

- Any affect in air pressure
- Any creation of fumes, noise or dust
- Any isolation of services (gas, electrical or water)

- Isolation of fire zones
- Any restrictions of access

f your work constitutes as an impacting activity , an **additiona 48hrs notice (i.e. 72hrs tota)** is required to be provided to P&FM prior to performing work

P&FM: 3096 2617

[redacted]

Knowledge Check

Match the statements:

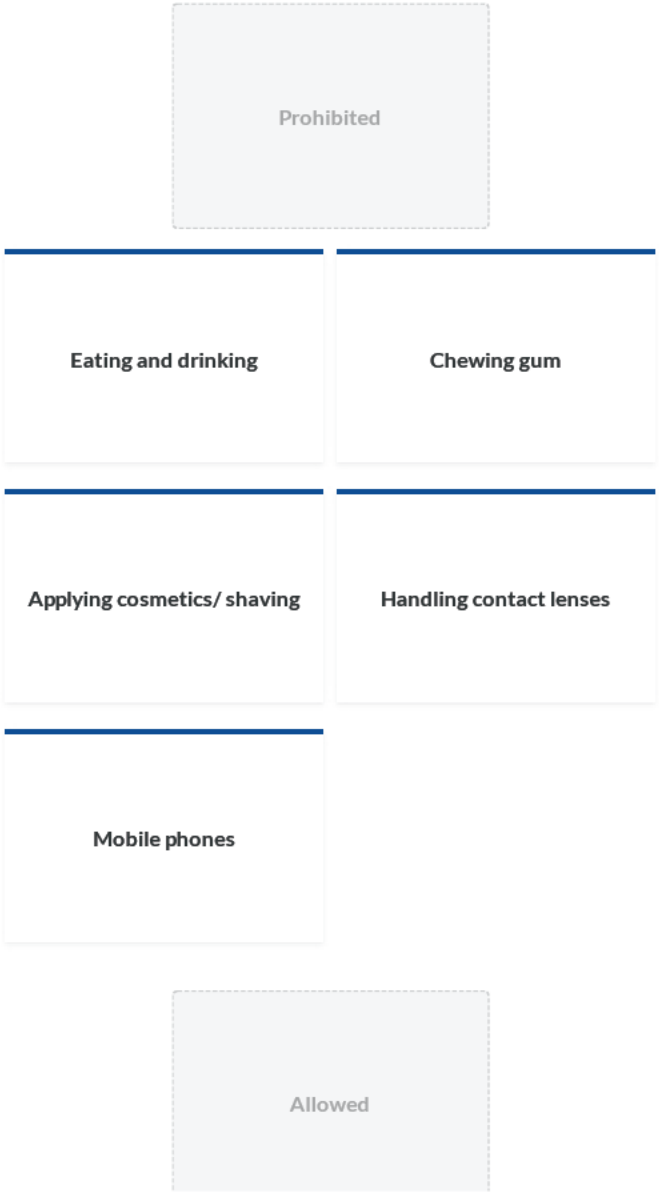
Work orders are picked up at	P&FM Office (Block 1)
24hrs notice is required	prior to attendance on site
Sign in/out of site at	security desk (Block 1)
Hours of access are	0730 – 1600 Monday to Friday

Comp ete the Know edge Check above before moving on.

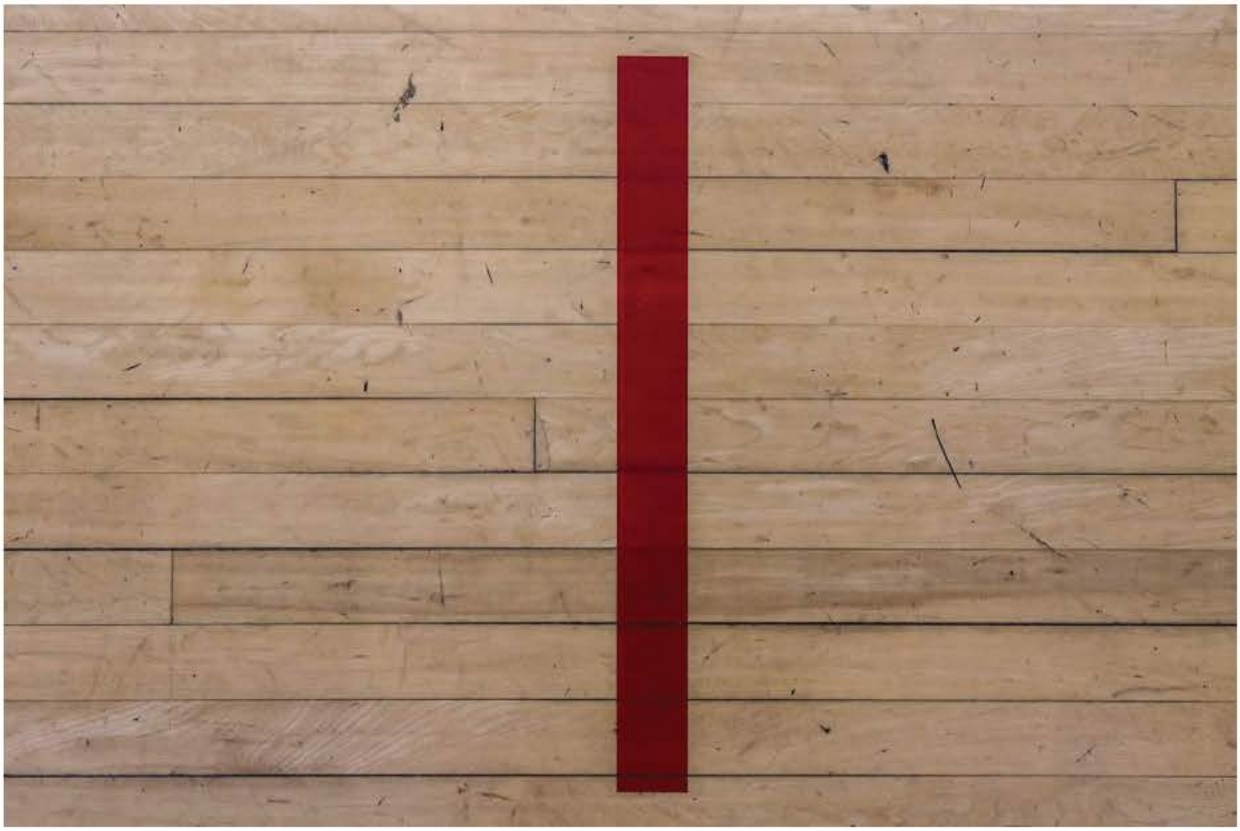
Lesson 8 of 11

Laboratory requirements

Complete the sorting interaction below to learn what activities are prohibited and what are allowed whilst inside a laboratory



Comp ete the sorting interaction above before moving on.



Demaraction lines on the floor can be variable in colour

Demarcation lines

update photo

Demaraction lines on floors advise a change of environment.

DO NOT cross these lines until a FSS staff member has advised you of the risks and required Personal Protective Equipment (PPE). Staff will instruct you on the correct procedure for putting on and taking off PPE.

CONTINUE

Cleaning and disposal of waste

- [ ] All benches are to be clean and clear from clutter as this could pose a biological and/or chemical safety risk. **You have the right to ask for these areas to be decontaminated and cleared**
- [ ] All non-disposable items that leave the laboratory such as tools or equipment are required to be decontaminated with alcohol wipes, bleach or disinfectant. **Ask laboratory staff for the best option**
- [ ] Discard all waste in the appropriate laboratory waste bins. Laboratoires have clinical and biohazard waste bins that may be required to be used. **Ask laboratory staff for the best option**
- [ ] All general waste generated by the work you perform is to be removed from site
- [ ] The campus asbestos register is held with P&FM

CONTINUE

Handwashing

Wash hands for 40-60sec as per World Health Organisation (WHO) recommendations

- When commencing and finishing any works
- Before and after touching any benches or equipment
- After leaving the laboratory or mortuary
- Before and after using the bathroom
- Before and after eating

World Health Organisation. 2015. WHO: How to handwash? With soap and water [Video]. YouTube. https://youtu.be/3PmVJQUCm4E

A coho ge s are avai ab e these shou d be used, when hands are not visib y soi ed.

Watch the video above before moving on.

Lesson 9 of 11

Containment awareness

Containment laboratoires use a combination of facility design, maintenance and work practices to ensure organisms are kept within the laboratory.

Biosecurity Act 2015

Some of which may be subject to biosecurity legislations and regulations

Non-comp iance can mean $55 000 - $1.1M fines and 2-5year jai sentences. These pena ties may be passed on when the breaches are not caused by Department of Hea th.

Containment levels (Physical Containment = PC; Biosecurity Containment = BC) are defined by the level of risk the hazardous or infectious material poses to people and the environment.

When quaratine samples are being worked on within these laboratories, the doors must remain closed.

BC2 - LOW RISK | BC3 - SIGNIFICANT RISK | PC4 - SERIOUS RISK

At FSS, Blocks 2,3 and 8 all have BC2 laboratories

- Inorganic chemistry
- Food chemistry
- Organics/ Phycology Nutrients
- Public Health Microbiology
- Public Hleath Virology

BC2 - LOW RISK | BC3 - SIGNIFICANT RISK | PC4 - SERIOUS RISK

At FSS, Blocks 3 and 8 all have BC3 laboratories

- Public Health Microbiology
- Public Health Virology

BC2 - LOW RISK | BC3 - SIGNIFICANT RISK | PC4 - SERIOUS RISK

At FSS, Block 8 has PC4 laboratory
Note, this risk can not be mitigated by vaccination

- Public Health Virology

Maintenance must not proceed if there is any potential risk posed to containment, safety or integrity of the facility

1. PC3 and PC4 laboratories run under negative pressure thus airlock doors should NOT be opened at the same time or one/both left open

2. Surfaces, walls, floors, windows, ceiling and benches must remain impervious and sealed. This also pertains to ducts in airflow systems and waste treatment plants

Scientific Managers and Chief Scientists must authorise:

- A work done in and around the aboratories, inc uding penetrations to wa s/floors and any dri ing screw ho es
- The commencement of any work in their aboratories and associated areas
- The commencement of any work re ating to the Air Hand ing System
- Access to B ock 3 or B ock 8 P ant Rooms or the Actini Waste Treatment P ant

You must comply with all standards, regulations and legislations whilst working in containment laboratories

This is to protect yourself, all other persons on site, and the environment

- [ ] Strictly no food or drink (this includes gum)

- [ ] PPE to be worn when directed
- [ ] Wash hands prior to exit
- [ ] **Only take what is required into containment laboratories**

This includes tools, laptops and mobile phones. All items will need to be effectively decontaminated (usually with 70% ethanol) prior to removal from the facility

If you think you have been exposed to something, notify a staff member immediate y

CONTINUE

Lesson 10 of 11

Mortuary awareness

The mortuary service provides autopsy and specialised services to assist coroners and bereaved familes during deaths that have been reported to a coroner under the *Coroners Act 2003*.

These examinations help to determine the cause of death and assist in identifying the deceased.

A though a high eve of care is taken to avoid visitors and service providers from being exposed to the routine activities of the mortuary, there is sti a change that this may inadvertent y occur.

P ease ensure that you notify mortuary staff if you are fee ing uncomfortab e at any time whi st in the mortuary

Operational hours are 0700 - 1600 Monday to Friday

- [ ] 1300 is usually the most appropriate time for service providers to enter the mortuary, however alternative times may be possible via prior arrangement with the mortuary manager
- [ ] Phone your mortuary contact 15-30mins prior to attending to confirm your entry is still suitable and there are no delays to entry
- [ ] Service providers are not permitted in theatre whilst it is operational
- [ ] A FSS staff member is to be present at all times
- [ ] All service providers must sign the visitor register located in the loading bay window at the time of entry and exit

"Confidentiality: Information of a confidential nature shall be treated with due respect. Information concerning cases should not be discussed socially or promoted in any other than a professional capacity"

World Health Organisation - Ethical practice in Laboratory Medicine and Forensic Pathology (section III)

The use of photography and/or video recordings is strictly prohibited within the mortuary

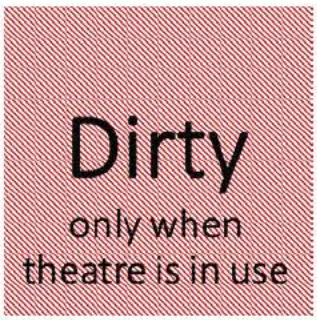
Infection control within the mortuary

Coloured lines (demarcation lines) have been placed on floors throughout the mortuary indicating change in infection control conditions.

Red = Dirty

Yellow = Inferface

White = Clean



Red + White = Dirty when theatre in use

Required Personal Protective Equipment (PPE)

Disposable gloves

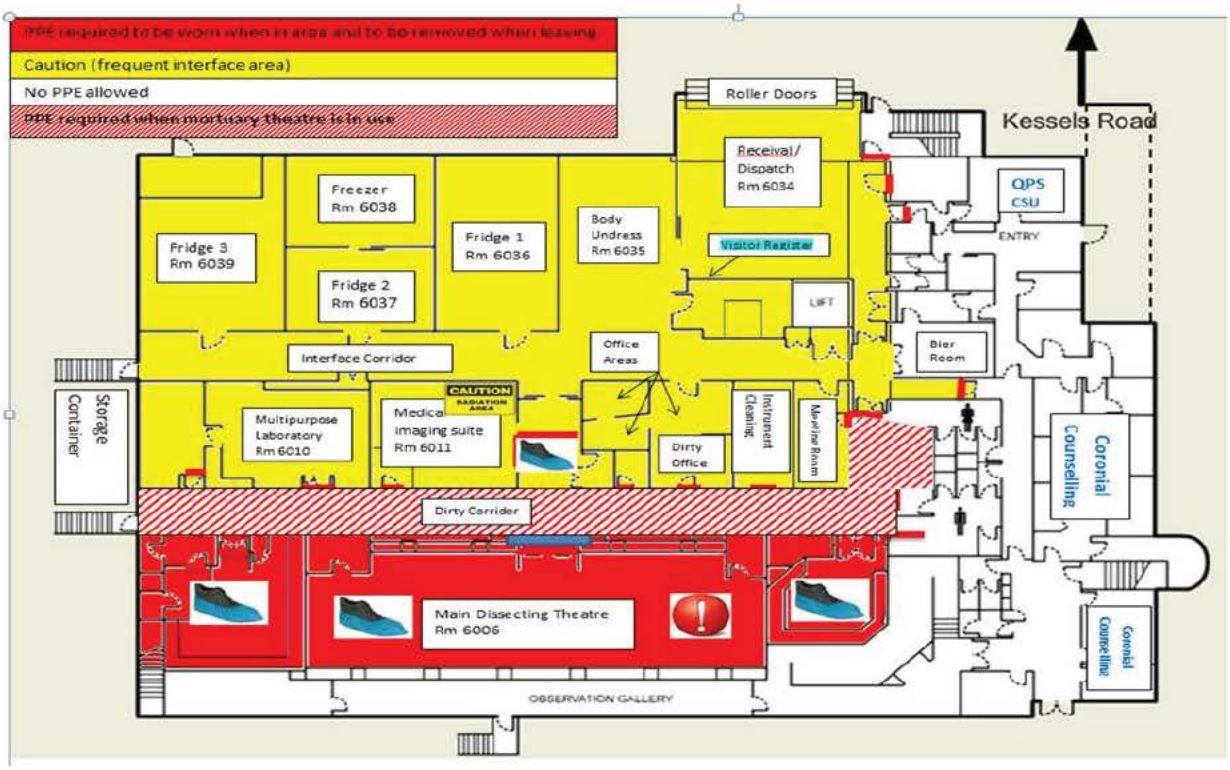
To be used to handle equipment such as taps and fridges to minimize any chance of biological

exposure

Boot/shoe covers

To be used at all times when working in the theatre or interface corridor

A PPE must be removed prior to exiting the mortuary and disposed of in the ye ow biohazard bins



CONTINUE

You must be aware of basic legislative regulations and safety associated with the possession and use of an ionizing radiation apparatus

Radiation Safety

Forensic Pathology owns and operates a Computered Tomography (CT) Scanner and a mobile oral dental x-ray unit for post-moretem diagnostic imaging of deceased persons only.

Governance of our practices is provided under:

Legislation

The Radiation Safety Act 1999 and **The Radiation Safety Regulation 2010** provide the legislative framework administered by Radiation Health

Possession License

A Possession Licensee is nominated (historically the Executive Director of FSS or the Principal Health Physicist of Radiation Nuclear Sciences).

All ionising radiation apparatus' and locations are listed within the Possession License

RSPP

Safe practices are outlined within a **Radiation Safety and Protection Plan (RSPP),** a hard-copy of which remains in the CT console area

Radiation Safety Officer

A radiation safety officer is responsible for:

- training and awareness
- recording and reporting of safety breaches
- monitoring compliance of equipment, premises and users

Click on the three markers below to learn more about our compliance measures:

User

Each user must possess a current radiation use license which stipulates their scope of allowable work

Room

Each room in which ionising apparatus is used must also meet compliance standards to ensure confinement of radiation

Equipment

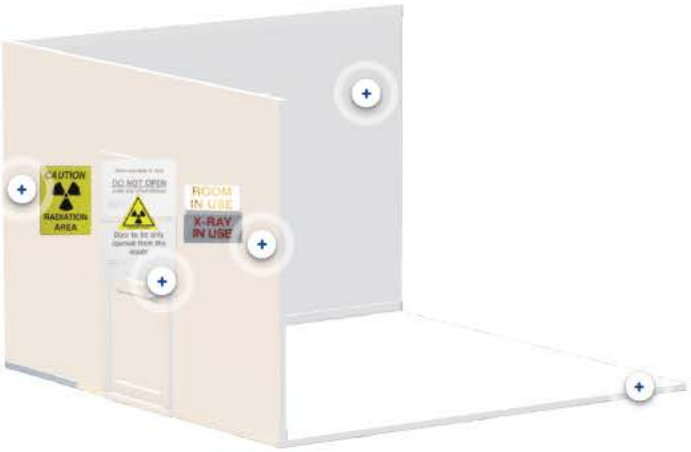
- Annual compliance testing of equipment (such as the CT scanner) to maintain quality assurance of radiation output
- Biannual scheduled preventative maintenance of equipment by the equipment manufactuer

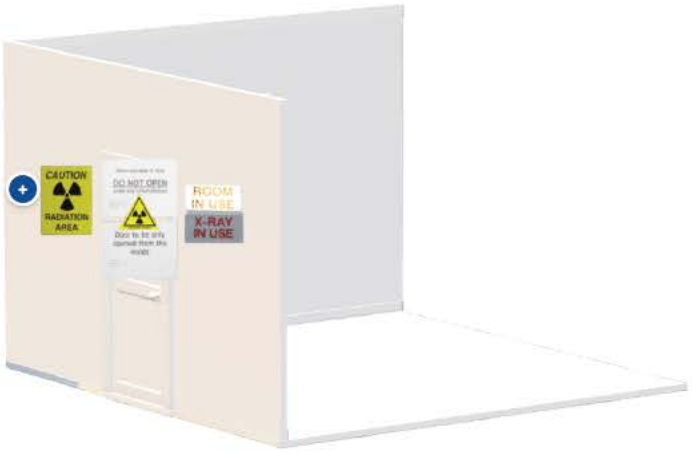
CONTINUE

Two rooms are approved at Coopers Plains.

Room **6001** houses the CT scanner and Room **6007A** is the Special Dissecting Theatre where mobile dental radiography is performed.

Click on the five markers below to learn more about our room compliance measures:


CAUTION
RADIATION AREA
DO NOT OPEN
ROOM IN USE
X-RAY IN USE



Hazard Signs

Room 6001 requires radiation caution hazard signage

Door

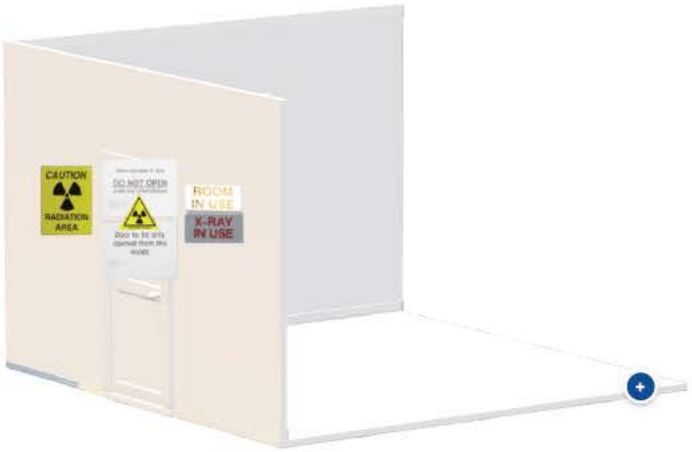
Large sliding scan room door only opens from the inside

Lighting Display

Lighting displays 'room in use' and 'x-ray in use' when the x-ray tube is ionising

Walls and Windows

Walls and windows are lead lined



Floors and Ceilings

Floors and Ceilings have sufficiently thick concerete to ensure there are no radiation leaks

As Low as Reasonab y Achievab e (ALARA Princip e) dose rates are not re evant to the deceased persons.

CONTINUE

Lesson 11 of 11

Completion Quiz

To confirm your understanding of the topics covered in this induction, you will now need to complete a short quiz.

The assessment contains 8 questions. These questions are multiple choice and only have one correct answer. **To pass the assessment you will need to achieve a mark of 100%.**

Question

01/05

I acknowledge that I have completed this training and I am able to apply these principles in the workplace. I understand my obligations in relation to work health and safety.

- ◯ Yes
- ◯ No

Question

02/05

I consent to the Forensic and Scientific Services Infection Control department having access to personal information (including but not limited to vaccination, immunisation and serology status/details) and giving this information to other areas within the Queensland public sector health system for infection control purposes. I understand these records may also be required to be given to my company for the same purposes.

- ◯ Yes
- ◯ No

Question

03/05

As a service provider, which of the following are you responsible for?

- Providing safe systems of work
- Managing hazards and risk
- Behaving in a professional manner
- All of the above

Question

04/05

Service providers assigning work to sub-contractors must obtain written permission from FSS Contractor Management - true or false?

- ◯ True
- ◯ False

Question

05/05

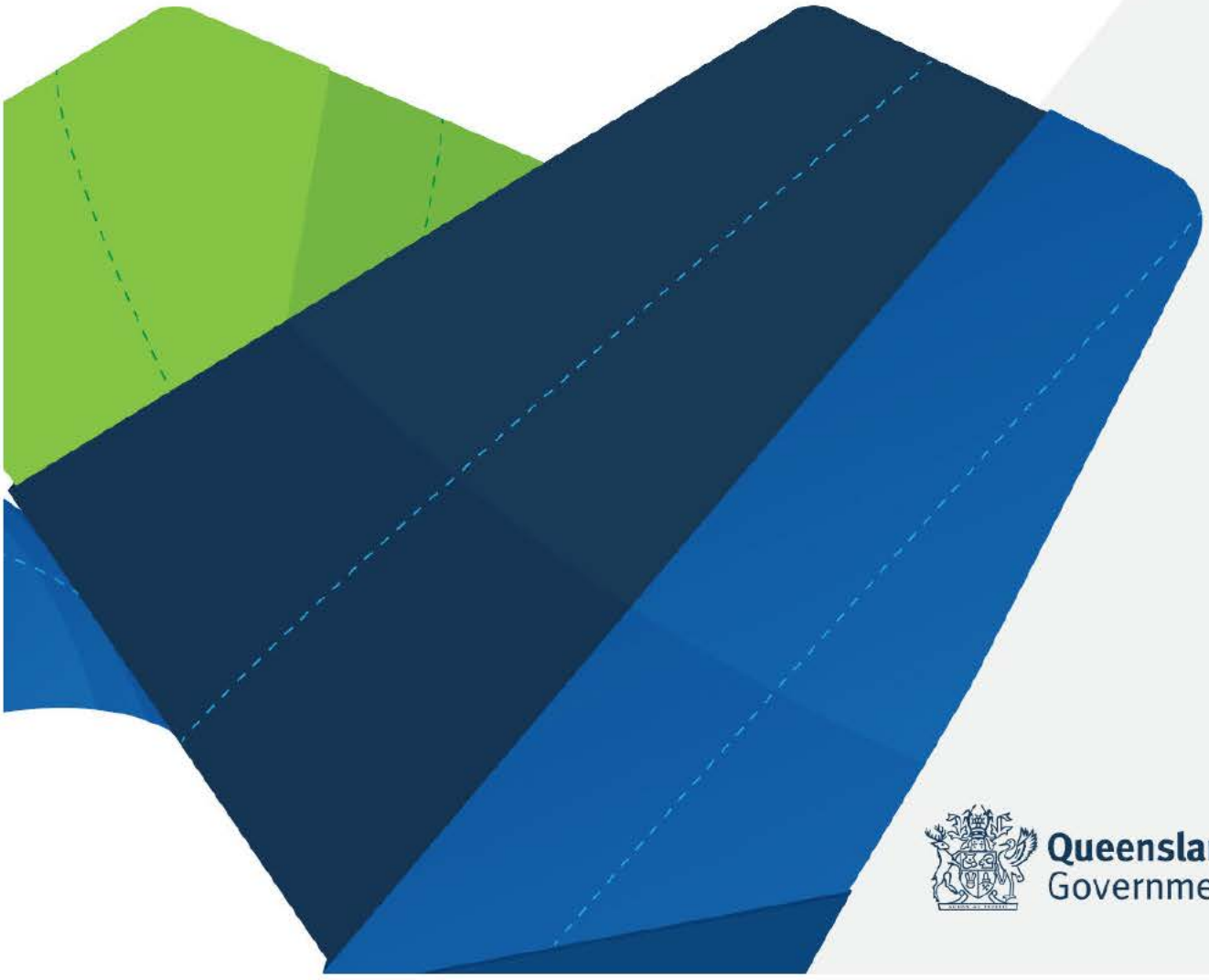
When should you report a workplace injury to FSS Contractor Management

- ◯ Immediately, regardless of the severity
- ◯ Within three days if no one was harmed in the incident
- ◯ Immediately, only if the injury is severe
- ◯ Before end of work shift

Queensland Health

Service Provider Management System Implementation Project Business Case

August 2021



Queensland Government

Document sign off

Approval by FSS Campus Support Services

Endorsement of the business case supporting preferred *Option 3: Implementation of* a *third-party contractor management system- funded by service providers*

Name: Stan Thomsen

Position: A/ Manager Campus Support Services, Forensic and Scientific Services

Signature: *Date:*

Endorsement by FSS Scientific Support Services

Endorsement of the business case supporting preferred *Option 3: Implementation of* a *third-party contractor management system – funded by service providers*

Name: Helen Gregg

Position: Quality Manager, Forensic and Scientific Services

Signature: *Date:*

Contents

Summary

Implementation of a third-party contractor management system will increase compliance and verification of pre-boarding documentation (i.e. insurances, licenses, Safe Work Method Statements etc.), induction documentation (i.e. Criminal History Checks, vaccination evidence etc.) and renewals.

Currently, Forensic and Scientific Services (FSS) manage contractor onboarding internally, relying on Property and Facilities Management (P&FM), Scientific Skills Development Unit (SSDU) and Infection Control to co-ordinate engagement, pre-boarding, inductions, and renewals. This involves

- P&FM determining, requesting, reviewing, and verifying pre-boarding documentation and their renewals
- P&FM liaising with e-Health to on-board individual contractors
- P&FM requesting, reviewing, and verifying induction documentation (Criminal History checks) and maintaining renewals biennially
- Infection Control requesting, reviewing, and verifying (and in some instances, renewal) of induction documentation (Vaccine Preventable Disease (VPD) evidence)
- SSDU troubleshooting enquiries from contractors and/or P&FM
- Fortnightly meetings between P&FM and Infection Control units to address areas of non-compliance
- Records maintained between physical files, local spreadsheet, local OneNote file and three generic mailbox accounts

A service provider is required to complete inductions using two online systems (departmental and FSS) and is also required to provide evidence of compliance to two different FSS email addresses. This can be very confusing and time consuming for the service provider.

A third-party service provider management system will deliver the following benefits:

- A dedicated local (Melbourne) team to drive compliance in determining, requesting, reviewing, and verifying pre-boarding documentation, induction documentation and renewals
- One system to record pre-boarding, inductions and renewal records and all communications
- Verifications to a framework of tolerance set by FSS with a cadence of contact
- A dedicated local (Melbourne) care team available to contractors directly to assist in pre-boarding documentation, inductions, and renewals
- Simplified, streamlined and efficient processes for FSS staff managing service provider attendance at FSS
- Simplified onboarding process for service providers (via one entry porta)
- Reduction in delays to service providers attending FSS

The negative impact of not implementing a third-party service provider management system will be continu ng current processes which are complex, time consuming and confusing.

Three options were considered as part of this business case. These were:

1. Do nothing
2. Implement a third-party contractor management system – funded by FSS
3. Implement a third-party contractor management system – funded by service providers

The recommended option is **Option 3: Implement a third-party contractor management system – funded by service providers.** A third-party contractor management system can be implemented immediately upon approval and endorsement from FSS stakeholders.

1 Scope

It is intended that the third-party contractor management system will onboard, induct and renew all service providers and their sub-contractors that are engaged at FSS.

1.1 Assumptions

The business case has been prepared based on the following assumptions:

- No additional FTE resources will be required to implement or support the system
- No additional IT infrastructure is required to implement or support the system

1.2 Timeframe

The recommended timeframe for implementation and transition is expected to be immediately post approval and endorsement.

2 Benefits and constraints

2.1 Expected benefits

The expected benefits of this initiative include:

- A dedicated local team to drive compliance in determining, requesting, reviewing, and verifying pre-boarding documentation, induction documentation and renewals
- One system to record pre-boarding, inductions and renewal records and all communications
- Verifications to a framework of tolerance set by FSS with a cadence of contact
- A dedicated local care team available to contractors directly to assist in pre-boarding documentation, inductions, and renewals
- Simplified, streamlined and efficient processes for FSS staff managing service provider attendance at FSS
- Simplified onboarding process for service providers (via one entry portal)
- Reduction in delays to service providers attending FSS

2.2 Constraints

The business case has been prepared based on the following constraints:

- FSS operational budget does not have existing funding to implement or support the system

3 Strategic options

3.1 Identification of options

The options identified are:

1. Do nothing
2. Implement a third-party contractor management system – funded by FSS
3. Implement a third-party contractor management system – funded by service providers

3.1.1 Option 1 – Do nothing

In this option, FSS (P&FM, SSDU and Infection Control units) would continue to manage service provider onboarding and inductions internally.

This option carries our current and continued risks of non-compliance of obtaining and verifying pre-boarding documentation (e.g., insurances and licences), the involvement of three separate business units, communication and information scattered across various record management systems and a reactive method for renewal compliance.

This option continues to require processes that are complex, time consuming and confusing for service providers to follow, and result in delays to service providers attending FSS.

3.1.2 Option 2 – Implement a third-party contractor management system – funded by FSS

In this option, a third-party contractor management system funded by FSS would be implemented to manage all pre-boarding, induction, and renewal requirements.

This option has the same processes and advantages as option 3, but funding of $15,000 per annum is required from FSS to manage the system.

3.1.3 Option 3 – Implement a third-party contractor management system – funded by service providers

In this option, a third-party contractor management system would be implemented to manage all pre-boarding, induction, and renewal requirements. Service providers would pay a minimal annual subscription fee (approx. $300 per business) to access the system. No funding would be required from FSS, although it is acknowledged that the service provider may pass this annual subscription onto FSS, hidden as another cost.

FSS would provide the third-party company with our business requirements, and this company would then be responsible for requesting, reviewing, and verifying pre-boarding documentation, induction documentation and renewals.

Within the one system, businesses are directed to upload pre-determined documentation which would then be reviewed and verified as per the requirements. Once verified, individual contractors are then requested to complete induction documentation. A dedicated local team are available to directly assist the businesses and

individuals in this process. The system would be accessible across FSS with different levels of privilege as deemed appropriate by key stakeholders. Data insights would be provided to FSS at predetermined intervals.

There would be one system for pre-boarding, induction and renewal records and all communications. FSS staff would no longer have to assist service providers, as there would be a care team available to directly assist in pre-boarding documentation, inductions, and renewals. Finally, there would be simplified, streamlined and efficient processes for FSS staff managing service provider attendance at FSS.

3.2 Comparison of options

Analysis	Option 1 – Do Nothing	Option 2 – Implement a third-party contractor management system – funded by FSS	Option 3 – Implement a third-party contractor management system – funded by service providers
Benefit	Nil	All expected benefits would be realised	All expected benefits would be realised
Risk	**High** Continued risk of non-compliance in obtaining, verifying and renewal of pre-boarding documentation. Documentation/records and communication scattered across various record management systems, all requiring administrative labor to action and follow-up.	**Low** Upon implementation and onboarding of engaged service providers, all required pre-boarding and induction documentation would be obtained, verified and renewed.	**Low** Upon implementation and onboarding of engaged service providers, all required pre-boarding and induction documentation would be obtained, verified, and renewed.
Impact	• Continued non-compliance and ineffectual records management • Laborious administrative processes requiring co-ordination of three business units • Confusion for service providers and subsequent time delays in providing services to FSS	• One stop shop for checking compliance and managing records • Reduction and simplification of administrative processes required to be completed by FSS staff • Simplified onboarding process for service providers (via one entry portal) • Reduction in delays to service providers attending FSS	• One stop shop for checking compliance and managing records • Reduction and simplification of administrative processes required to be completed by FSS staff • Simplified onboarding process for service providers (via one entry portal) • Reduction in delays to service providers attending FSS
Costs	Nil upfront costs but decreased efficient business processes.	FSS: $15 000/ annum Service Provider (*company*): Nil	FSS: Nil* Service Provider (company): ~$300/ annum **Nil but service provider costs may be passed on*

Table 1 – Comparison of options

3.3 Preferred vendor option

Based on the analysis, the preferred option is **Option 3 – Implement a third-party contractor management system – funded by service providers.** This option allows for all expected benefits to be realised, with nil upfront cost to FSS. There are two strong third-party contractor management systems available. Both offer FSS paid (option 2) or service provider paid (option 3) models.

The two shortlisted third-party contractor management systems are compared below with the recommendation system being iPRO Solutions.

Capability	CM3 Contractor Management	iPRO Solutions
User-friendly interface from both internal and external perspective	Interface is intuitive from both an internal (FSS staff) and external (service provider) perspective	Interface is intuitive from both an internal (FSS staff) and external (service provider) perspective.
One system to store all records, communications, and renewals	All records (pre-boarding documents, induction completions, criminal histories, VPD evidence) and communications are stored and accessible within one system	All records (pre-boarding documents, induction completions, criminal histories, VPD evidence) and communications are stored and accessible within one system
Review and verification of pre-qualification documents	All pre-boarding documents are requested, reviewed, and verified to a framework of tolerance set by FSS.	All pre-boarding documents are requested, reviewed, and verified to a framework of tolerance set by FSS.
Review and verification of individual induction documents	All individual induction documents are requested through the system however FSS staff would be required to review and verify the documentation.	All individual induction documents are requested, reviewed, and verified to a framework of tolerance set by FSS.
Follow-up of renewal documentation as required	All documentation renewal (pre-boarding and individual induction documents) are followed up for renewal at pre-determined intervals. Individual induction documents are required to be reviewed and verified by FSS staff.	All documentation renewal (pre-boarding and individual induction documents) are followed up for renewal and verification at pre-determined intervals. All individual induction documents are reviewed and verified to a framework of tolerance set by FSS.
Data-insights of compliance	Data-insights available to FSS at pre-determined intervals	Data-insights available to FSS at pre-determined intervals
Local team available to assist contractors directly	A dedicated local team are available as the contractors first point of contact to troubleshoot and assist any enquiries.	A dedicated local team are available as the contractors first point of contact to troubleshoot and assist any enquiries.

Table 2 – Comparison of vendors

4 Risks

The following project and delivery risks have been identified to date:

Risk ID	Risk description	Current Risk Rating	Treatment Action	Projected Risk Rating
1	Currently engaged service providers may not agree to sign-up and pay for access to the system	High (16)	iPRO has negotiated that FSS will receive one (1) free membership for every four (4) service providers that sign-up to their system, to be used at FSS' discretion	Low (5)
2	Initial onboarding and transition of currently engaged service providers to the system may take some time.	Medium (10)	Transition of currently engaged service providers to the system would be a major focus of the implementation plan. In working with the vendor, iPRO, there is possible scope to assign an AO3 resource from SSS to further assist with this transition. Whilst transitioning currently engaged service providers to the system, there is still the availability to induct service providers through our current system if operationally required.	Low (4)
3	Larger service providers that have completed pre-boarding may send individual service providers that have not completed their individual documentation.	High (16)	This risk holds true for our current process and the transition to iPRO will not minimise the occurrence of this risk. However, with a simplified onboarding process (direct invitation into the system through one entry portal where all induction training and documentation is completed) it is expected that even with the on-going risk, there will be a reduction in delays for completion.	Medium (10)
4	Potential outsource of local "care team" overseas that may not be as adequately resourced and cause disruption to business operation.	Low (4)	Address concern within our contractual agreement with iPRO through addition of turnaround times as a KPI. If this risk is realised, SSS and P&FM could assist as required until resolve.	Low (1)

Table 3 – Projected delivery risks

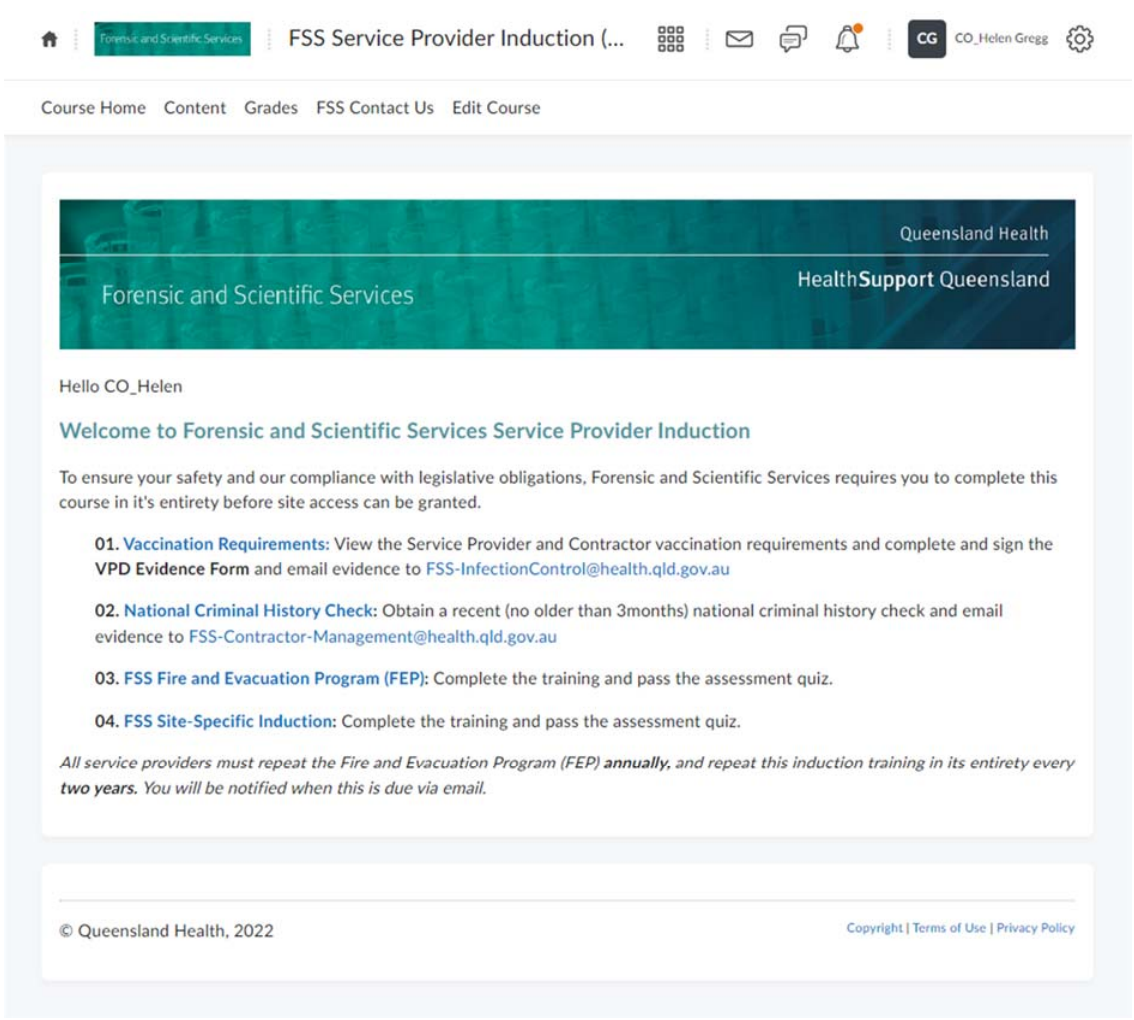
5 Costs

There would be no costs to FSS for option 3: implementation of a third-party contractor management system – funded by service providers, although it is recognised that the service provider may pass this annual subscription onto FSS, hidden as another cost.

6 Implementation plan

The third-party vendor will facilitate the implementation of the service provider management system, in collaboration with all key stakeholders- Property and Facilities Management, Campus Operations, Scientific Skills Development and Infection Control units.

Upon implementation, the local team of the third-party vendor would contact all current FSS contractors to drive conversion to the new system.


Forensic and Scientific Services
FSS Service Provider Induction (...
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CO_Helen Gregg
Course Home
Content
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Queensland Health
Forensic and Scientific Services
HealthSupport Queensland
Hello CO_Helen
Welcome to Forensic and Scientific Services Service Provider Induction
To ensure your safety and our compliance with legislative obligations, Forensic and Scientific Services requires you to complete this course in it's entirety before site access can be granted.
01. Vaccination Requirements: View the Service Provider and Contractor vaccination requirements and complete and sign the VPD Evidence Form and email evidence to FSS-InfectionControl@health.qld.gov.au
02. National Criminal History Check: Obtain a recent (no older than 3months) national criminal history check and email evidence to FSS-Contractor-Management@health.qld.gov.au
03. FSS Fire and Evacuation Program (FEP): Complete the training and pass the assessment quiz.
04. FSS Site-Specific Induction: Complete the training and pass the assessment quiz.
All service providers must repeat the Fire and Evacuation Program (FEP) annually, and repeat this induction training in its entirety every two years. You will be notified when this is due via email.
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FSS procedure for work area organised service providers/contractors

1 Purpose

The purpose of this procedure is to describe the procedure for work areas to follow when organising service providers/contractors to attend their laboratory to perform work (e.g. specialised technicians for laboratory equipment repair or maintenance).

2 Scope

This procedure shall apply to all work areas who organise/coordinate the attendance of contractors to their work area at Forensic and Scientific Services.

3 Definitions

GEFRI: General Emergency First Response Instruction

Supervised: Direct line of sight of a FSS staff member from the work area for service providers/contractors who have not been inducted staff (Campus Support Services staff do not supervise work area organised contractors). This direct line of sight is required for the whole duration of time that a service provider/contractor is in secure sections of FSS. Supervision also requires that the service provider/contractor is escorted to other areas when required (e.g. entry to the toilets). The staff member supervising the service provider/contractor has a responsibility to direct the service provider/contractor away from doing anything which may affect the functioning, safety, or integrity of the work area and report any instances of non-compliance to their line manager or delegate.

Escorted: *Only applicable if the location of the works is a low-risk area e.g. meeting rooms.* The service provider/contractor must be accompanied by an inducted staff member to the location of the works. The service provider/contractor may then be unsupervised whilst completing the works but cannot leave that area (except for in an event of an emergency in which the service provider/contractor must follow and comply with all directions given by an inducted staff member). Once work is completed, an inducted staff member must accompany the person until outside of a secure area.

Secure areas: All areas in FSS where swipe card access is required. This includes the café area. Areas that do not require swipe card access are the external grounds, and the front security area. All other areas are considered secure for the purposes of supervision.

4 Actions

Step 1: **Determine if vaccination is required to allow the service provider/contractor to enter the work area.**
See QIS: 35272 - Service Provider and Contractor vaccination requirements.

<table>
<tr><td rowspan="3">Category level required to perform works</td><td>Category 0</td><td colspan="2">If due to “cleaning, repairing or maintaining decontaminated equipment or other items used in a laboratory/ mortuary”, QIS: 32602 - FSS Decontamination Certificate must be completed and sighted by the service provider/contractor prior to commencing work. If PPE is still required to be used post-decontamination, this should also be verbally communicated to the service provider/contactor.</td><td>Continue to Step 2</td></tr>
<tr><td rowspan="2">Category 1-3</td><td rowspan="2">Check cleared category level in the Service Provider spreadsheet (under the “Vaccination cleared by Infection Control” column)</td><td>Category level appropriate</td><td>Continue to Step 2</td></tr>
<tr><td>Service provider/ contractor not listed, or their listed Category level is below the required category level</td><td>Email service provider/ contractor with a copy of QIS: 35272 and cc’ FSS Infection Control with the following details
• Date work is to be completed
• Category level required
Continue to Step 2</td></tr>
<tr><td colspan="4">Please note: Depending on the level of vaccination category required, it can take several months for a contractor to be cleared to enter a work area. This will need to be taken into consideration when scheduling works.</td></tr>
</table>

Step 2: Determine if the service provider/contractor requires an induction

a) Length of work	Will the service provider/ contractor be on site for more than 2 weeks of 10 hours per/week over a 3-month period?	No	***Continue to Step 2b)***
		Yes	Induction required. ***Continue to Step 3***
b) Supervised/ Escorted	Will the service provider/ contractor be supervised or escorted as per the definition outlined in 3.0 Definitions?	No	Induction required. ***Continue to Step 3***
		Yes	Email FSS-Contractor-Management to advise a supervised/escorted work-area organised service provider/contractor will be coming on site and detail i. Name of service provider/contractor ii. Date of works iii. Works to be completed (including if any services will be connecting to power, water, or gas) ***No further action required.***

Step 3: Determine if the service provider/contractor has previously completed an FSS Induction and is still compliant

View the Service Provider spreadsheet to confirm current compliance (green cells)

Does the service provider/ contractor have current compliance (green cells) for: i. Criminal History ii. DoH/FSS Induction iii. GEFRI iv. Infection and Prevention Control (if unsupervised in laboratories or mortuary) v. Mortuary Induction (if unsupervised in the mortuary)	Yes	Email FSS-Contractor-Management to advise a work-area organised service provider/contractor will be coming on site and detail i. Name of service provider/contractor ii. Date of works iii. Works to be completed (including if any services will be connecting to power, water, or gas) ***No further action required.***
	No	Email FSS-Contractor-Management with the following information i. Name of service provider/contractor ii. Unique email address iii. Works to be completed and date required iv. If Infection and Prevention Control or Mortuary Awareness training is required
Please note: Criminal history checks can take some weeks to be completed. This will need to be taken into consideration when scheduling works. The DoH/FSS induction and GEFRI is completed online and the time to complete this is dependent on the service provider/contractor – usually within 30mins-1hr.		

5 Urgent works

The Manager, Campus Support Services is to be contacted if an exception to this process is required for urgent works. The Manager, Campus Support Services is then to communicate in writing to all relevant stakeholders (i.e. the service provider/contractor, FSS Contractor Management and the area manager/representative requesting the exemption) the reasoning for accepting or rejecting a variation to the process and document any actions/conditions to be satisfied so works can be progressed.

6 Records

Records include GEFRI, Criminal History checks, and vaccination records. These are managed through FSS Infection Control, FSS Contractor Management and iLearn.

Copies of equipment decontamination certificate are to be kept by the work area, in the relevant equipment corporate file.

Risk assessments for exceptions with decisions included.

7 Associated Documentation

QIS: 35272– Service provider and contractor vaccination requirements

QIS: 32602– FSS decontamination certificate

8 Amendment History

Version	Date	Updated By	Amendments
1	Feb 2021	J Daly/H Gregg	New document
2	April 2022	K Jory	General revision

Queensland Health

Forensic and Scientific Services

Sustaining Capital Program

Purchase of quantitative fit testing equipment

Author

Helen Gregg, Manager, Scientific Support Services

Email [redacted] Phone Number: [redacted]

1. Project Definition

Description

This project is to purchase a quantitative fit test machine for performing quantitative fit tests on masks.

Objectives

The objective is to be able to perform quantitative mask fit tests, instead of the current qualitative fit tests.

Scope

Included in the scope is the purchase of the fit test machine. Ongoing calibration and consumables will be funded from operational budget.

Background

Fit tests are used to determine if a disposable or reusable respirator has an adequate seal by detecting if any air is leaking into the face piece.

Qualitative fit tests (QLFT) are pass/fail, based on the users sense of smell or taste, while quantitative fit tests (QNFT) use specialised equipment to measure exactly how much air is leaking through the seal.

Fit testing is required by Australian New Zealand Standard AS/NZS1715 before a user wears a respirator on the job and should be assessed at least annually.

QLFT relies on the user to determine if they can smell a sweet or bitter substance while wearing their mask and performing a series of exercises. The test takes approximately 20-30 minutes to complete and is quite subjective. QLFT can only be done on disposable masks

QNFT involves using an instrument to measure leakage around the face seal and produces a numerical result called a "fit factor." This test is objective and takes approximately 10-15 minutes to complete.

FSS currently performs 64 QLFT respirator fits test annually. Approximately 17 staff are also required to have a QNFT for full face masks. This is performed by an external agency at $75 per test.

Queensland Government

2. Business Options

Identification of Options

The options identified are:

1. Do nothing
2. Purchase quantitative fit testing equipment and perform tests quantitatively

Option 1 – Do Nothing

In this option, FSS would continue to perform QLFT annually and outsource the QNFT for staff requiring full face mask fit testing.

FSS would continue to perform the time consuming and cumbersome QLFT, taking both testing and user staff away from the work unit for approx. 30 minutes, instead of the more efficient 15 minutes with QNFT.

FSS would also be reliant on the external provider to perform QNFT services and would need to absorb any increase in costs (there was a $10 per test increase in the last 12 months).

Option 2 – Purchase quantitative fit testing equipment and perform testing quantitatively

In this option, FSS would purchase quantitative fit testing equipment and perform all fit testing in-house by QNFT. There would be an initial capital outlay of approximately $22,000 for the equipment, with ongoing annual consumable, servicing, and calibration costs of approximately $2000 per year, which would be from operational budget.

Switching fit testing at FSS to QNFT is more efficient, resulting in a 50% reduction in staff time away from the workplace, meaning the equipment pays for itself in 10 years. It is also reduces the safety risk of staff wearing poorly fitted masks as it is based on a quantitative 'fit factor' instead of the subjective detection of smell. There is also the cost saving of QNFT currently outsourced by FSS to an external company.

Comparison of Options

Analysis	Option 1 (QLFT)	Option 2 (QNFT)
Business impact	Continued inefficiencies and time away from core business activities with long testing time for QLFT for both testing staff and users	Implementation of more efficient QNFT, halving the time away from core business activities for both testing staff and users
Value provided	Subjective fit test, relies on user taste and smell to detect leakage	Objective fit test, resulting in measurement of 'fit factor '
Costs (see separate table)	Labour costs: $3500 - $4000 per annum External QNFT: $1,125 per annum Equipment: nil Consumables: $500 per annum	Labour costs: $1750 - $2000 per annum External QNFT: nil Equipment: $20,000 one off Consumables: $1,500 per annum Save approx.$2,000 per annum. Equipment would pay for itself in 10 years.

Analysis	Option 1 (QLFT)	Option 2 (QNFT)
Risks including delivery risks	Incorrectly fitted mask, resulting is safety issue for user, due to subjective nature of the QLFT test	Mitigation of safety risk associated with incorrect fitting masks
Service need	Ongoing labour costs due to time taken to provide QLFT service	Reduction in labour costs, due to reduction in time taken to provide the QNFT service
Stakeholder impact	Nil – continued time away from work unit	Reduction in time away from work unit
Issues	Increased cost of externally sourced QNFT	Nil costs as QNFT will be provided in-house

Costs

Cost	Option 1 (QLFT)	Option 2 (QNFT)
Testing staff (AO4) Or Testing staff (HP4)	$47 per hour x 0.5 x 64 = $1,504 Or $62 per hour x 0.5 x 64 = $1,984	$47 per hour x 0.25 x 64 = $752 Or $62 per hour x 0.25 x 64 = $992
User staff* (HP4)	$62 per hour x 0.5 x 64 = $1,984	$62 per hour x 0.25 x 64 = $992
Total Labour costs	$3,488 to $3,968 per annum	$1,744 to $1,984 per annum
QNFT	$75 per test x 15 = $1,125	Nil
Consumables	$500	$1,500
Total Non-labour costs	$1,625	$1,500
Grand Total	**$5,113 to $5,593**	**$3,244 to $3,484**
Savings	**$1,869 to $2,109 per annum**	

* User staff rate is based on average. Staff classifications for users range from OO3 to Pathologist

3. Justification and Recommendation

Recommendation

Option 2 (purchase of QNFT equipment) is the preferred option, based on the previous analysis. This option has the highest desirability, is viable and achievable – delivering all the proposed benefits.

4. Resourcing Requirements and Funding

Capital Costs

Capital funding required is $22,000. Three quotes have been sourced for the purchase of the QNFT equipment and these are detailed below:

Company	Equipment	Capital funding request
Active Environmental Solutions (AES)	AccuFIT9000 Pro Fit Tester Kit N95	$16,095 ex GST
Air-Met Scientific	TSI Portacount 8048	$20,609 ex GST including 2-year warranty

Kenelec	PortaCount Pro+ Fit Testing System	$21,856 ex GST

Operational Costs and Recurrent Costs

Operational and recurrent costs associated with the project are detailed below. These would be funded from operational budget.

Company	Equipment	Operational and recurrent costs
Active Environmental Solutions (AES)	AccuFIT9000 Pro Fit Tester Kit N95	$5,990 ex GST 5 yr warranty (includes annual calibration) ($1,198 per annum) $183 ex GST consumables
Air-Met Scientific	TSI Portacount 8048	
Kenelec	PortaCount Pro+ Fit Testing System	$1,490 ex GST per annum calibration and service $236 ex GST consumables

Total Investment (Incl. GST)

Year 1 Capital Investment	$22,000 (purchase of QNFT equipment)
Year 2 Recurrent Costs	*$2,000 (operational budget - calibration and consumables)*
Year 3 Recurrent Costs	*$2,000 (operational budget - calibration and consumables)*
Year 4 Recurrent Costs	*$2,000 (operational budget - calibration and consumables)*
Year 5 Recurrent Costs	*$2,000 (operational budget - calibration and consumables)*
Total Capital Investment	$22,000

5. Timescale

Purchase of equipment for QNFT would be completed by Dec 2021.

Benefits would be realised immediately after purchase and would be ongoing.

6. Risk Assessment

The following risks have been identified:

- Safety risk due to improperly fitted mask due to the subjective nature of the QLFT test
- Ongoing costs for annual servicing and calibration of QNFT equipment

7. Business Benefits/Outcomes

The expected benefits of this project include:

- Reduction in time away from the work unit for mask fit testing
- Objective fit testing culminating in a numerical result (fit factor)
- Increase assurance of correctly fitting mask, and reduction in associated safety risk
- Increased efficiencies with implementation of faster QNFT test protocols
- Reduced reliance on external providers for QNFT

APPROVED / NOT APPROVED	APPROVED / NOT APPROVED
Signature:	*Signature:* [redacted]
John Doherty **Executive Director** **Forensic and Scientific Services**	Malcolm Stringer A/General Manager PQ and FSS
Date / /	**Date** 18/ 10/ 2024

Comments:

Cleared by Line Manager	**Cleared for Confirmation of Funding by** *(Senior Business Performance Officer or appropriate financial representative)*
Helen Gregg, Manager Scientific Support Services [redacted] Date submitted:	Gemma Mockler, Senior Business Performance Officer Finance and Business Services [redacted] Date submitted:

Queensland Health
GENERAL MANAGER PQ & FSS
BRIEFING NOTE

C-ECTF-21/14595
PQ/FSS

SUBJECT: Forensic and Scientific Services purchase of quantitative fit testing equipment through capital funding

☑ Approved ☐ Not approved ☐ Noted ☐ Further information required (see comments)	Signed.....[redacted]..... Date..13/..10/..21 Malcolm Stringer, Acting General Manager, Pathology Queensland and Forensic and Scientific Services Comments:

ACTION REQUIRED BY
There is no specific timeframe required.

RECOMMENDATION
It is recommended the Acting General Manager, Pathology Queensland and Forensic and Scientific Services:

- **Approve** the submission to seek capital funding from the Sustaining Capital Program managed by the Capital and Assets Services (CAS) Branch for a quantitative fit test machine at a cost of $22,000 (ex GST) to perform quantitative fit tests on masks.

ISSUES
1. Forensic and Scientific Services (FSS) currently performs 64 qualitative fit tests (QLFT) annually and is charged $1,275 annually for quantitative fit tests (QNFT) to be performed by an external provider.
2. QNFT are 50% faster to perform than QLFT and reduce the safety risk of staff wearing poorly fitted masks as it is based on a quantitative 'fit factor' instead of the subjective detection of smell in the QLFT.
3. Switching fit testing at FSS to QNFT is more efficient, meaning the equipment pays for itself in 10 years.
4. A business case was developed and recommends that the purchase of QNFT equipment is the preferred option based on the analysis (Attachment 1).
5. Prof Keith McNeil, Acting Deputy Director-General, Prevention Division agreed to sub-delegate approval of Sustaining Capital Program funding requests to the General Manager, PQ and FSS on 7 October 2021 (C-ECTF-21/17783).

BACKGROUND
6. Fit tests are used to determine if a disposable or reusable respirator has an adequate seal by detecting if any air is leaking into the face piece.
7. QLFT are pass/fail based on the users sense of smell or taste, while QNFT use specialised equipment to measure exactly how much air is leaking through the seal.
8. Fit testing is required by the Australian New Zealand Standard AS/NZS 1715 before a user wears a respirator on the job and should be assessed at least annually.

RESULTS OF CONSULTATION
9. Helen Gregg, Quality Manager and Cathie Allen, A/Executive Director, FSS were consulted and support this proposal.

RESOURCE/FINANCIAL IMPLICATIONS
10. Capital funding for the quantitative fit test machine will be sought from the Sustaining Capital Program managed by CAS for a total of $22,000.
11. FSS note its responsibility for any expenditure over and above the approved capital budget.
12. FSS has identified and will manage ongoing operational costs of $2,000 annually for calibration and consumables.

SENSITIVITIES/RISKS
13. There is a safety risk of improperly fitted masks due to the subjective nature of the QLFT if this equipment is not purchased.

ATTACHMENTS
14. Attachment 1. Quantitative fit test equipment business case

Queensland Health
GENERAL MANAGER PQ & FSS
BRIEFING NOTE

C-ECTF-21/14595
PQ/FSS

Author	Cleared by (Dir/Snr Dir)	
Name: Gemma Mockler Position: Senior Business Performance Officer Unit: Forensic and Scientific Services [redacted] Date Drafted: 16/09/2021	Name: Cathie Allen Position: A/Executive Director, FSS Branch: Prevention Division [redacted] Date Cleared: 16/09/2021 **Note clearance contact is also key contact for brief queries**	

Template: (Full - New Person)

Thursday, 12 December 2019 1:21 PM

Vaccination requirements are the responsibility of the staff member this page has been sent to you to view your vaccination records. - If vaccinations are due please contact FSS-InfectionControl@health.qld.gov.au. If any information is incorrect please advise via email and this will be actioned.

Important Updates.	★
Notes	
Emails attached	

1. Pre-commencement

☐ VPD form Submitted to FSS infection Control / Privacy Consent form submitted

Date Submitted	VPD Attachment	Further Evidence Attachment

☐ Enter details from VPD form to the spreadsheet to determine Pre-commencement approval and post commencement requirements

Staff VPD

Edit

Requirement	Requirement Choices	Requirement Choices	Requirement Choices	Requirement Choices	Requirement Choices	Requirement Choices	Requirement Choices	Requirement Choices	Requirement Choices
Disease	Hep B	MMR	Varicella (Chicken Pox)	Diphtheria / Pertussis / Tetanus	Hep A	Men ACWY	MenB	Rabies	Japanese Encephalitis
Pre- commencement evidence requirements	Min of 2 doses or serology	Min 1 dose or IgG serology required	Min 1 dose or serology required	Min of 1 dose	Nil	Nil	Nil	Nil	Nil
Post Commencement - to organise with CEII infection Control	3rd dose and/or serology	2nd dose or Serology	2nd dose or Serology	One dose every 10 years	2 doses or serology	1 dose and a booster every 5 years	2 doses	3 doses and serology 6 weeks later - Serology every year	1 dose of imojev and 2 doses is Jespect
Name of Vaccine / Screen	Choose Vaccine	Choose Vaccine	Choose Vaccine	Choose Vaccine	Choose Vaccine	Choose Vaccine	Choose Vaccine	Choose Vaccine	Choose Vaccine
Date of Dose 1	0d date	0d date	0d date	0d date	0d date	0d date	0d date	0d date	Day 0 date
Date of Dose 2	7d(A) 1m	28d date	28d date	No Vaccine	6m Date	No Vaccine	8 weeks Date	7d date	Jespect only 28d
Date of Dose 3	21d(A) 6m	No Vaccine	No Vaccine	No Vaccine	No Vaccine	No Vaccine	No Vaccine	Day 21-28 date	No Vaccine
Date of Booster / 4th Dose	1y(A) date			10 years		5 years	No booster	Booster required if <0.5 IU/mL	No booster
Serology Immunity or Titre level	> 10IU/mL	M= M= R=		D= P= T=		No Serology	No Serology	Booster required if <0.5IU/mL	No Serology
Date of Serology	28 days after last dose					No Serology	No Serology	6 weeks after last dose and then every year	No Serology
Other	Hepatitis B Vaccine is usually given as a 3 dose course with 1 month minimum	Born before 1966	History of Chicken Pox						
Next Vaccination/Serology Due	If does not seroconvert send to CEII for intradermal			Booster 10 years		Booster every 5 years		Yearly	
Actions	Note if doses do not meet required dosage scheudleing time, request	Only need to see two doses - any timeframe recommend							

Status	Status dropdown	Status dropdown	Status dropdown	Status dropdown	Status dropdown	Status dropdown	Status dropdown	Status dropdown	Status dropdown
Comments									

	Date Reviewed	Cleared/ Not Cleared	Email Evidence - attached Blank Template - Cleared / Blank Template - Not Cleared		Date	Added to SPA
Pre-commencement				Commencement		☐ Yes initial date ☐ No - Reason initial date.

3. VPD action - Outlook Tasks

How to add and complete section 3 actions

Name of person (Unit) - Name of Vaccine due - dose ?/? - due on <<date>>	Comments

3. TB Screen

Forensic Pathology staff accessing Theatre only

Screening form to be completed and sent to TB clinic on Induction day- Tb Clinic decides on course of action -Mantoux, Chest x-ray , QuantiFERON Gold (-ve (able to work) +ve send to TB clinic and if follow ups are required)

Date of Email Sent Blank Template	TB Email Attachment	3 month follow up Task	Date of TB Screen	Work Card Attachment
		Name of person (Unit) - TB follow up - due on <<date>>		

4. Annual Fit Test

Forensic Pathology /Pathologists/Microbiology/Clan Labs on-call)

Qualitative Appointment

Quantitative Appointment offsite /onsite

Respirator (Models)	Respirator size	Fit Test Type	Date of Fit Test	Real Time Pass/Fail	Fit Test Pass/Fail	Checklist/Report Attached	Sent to P-file	Annual follow up Task
	☐ Small ☐ Med/Reg ☐ Large ☐ One size	☐ Qualitative ☐ Quantitative		☐ Pass ☐ Fail ☐ Borderline	☐ Pass ☐ Fail	☐ Checklist ☐ Report	Date	Name of person (Unit) - Annual fit test (RPE Model /Type) - due on <<date>> <purpose>
	☐ Small ☐ Med/Reg ☐ Large ☐ One size	☐ Qualitative ☐ Quantitative		☐ Pass ☐ Fail ☐ Borderline	☐ Pass ☐ Fail	☐ Checklist ☐ Report	Date	Name of person (Unit) - Annual fit test (RPE Model /Type) - due on <<date>> <purpose>

5. Annual Health Assessment (September each year)

RACE / Clan Lab On-call

All reports are sent by DoH Safety to staff member, original records are maintained by DoH Safety as of 2021

DoH Safety - Annual Assessment Reminder Attachment	Clearance email from DoH Safety	Date Cleared	Comments
	<attach>		

Notice number: 2022/00328

COMMISSION OF INQUIRY INTO FORENSIC DNA TESTING IN QUEENSLAND

Section 5(1)(d) of the *Commissions of Inquiry Act 1950*

STATEMENT OF SHARON MELISSA JOHNSTONE

I, **Sharon Melissa Johnstone, Senior Scientist,** care of Queensland Health Forensic and Scientific Service, Reporting Scientist, do solemnly and sincerely declare that:

1. I have provided the following statements and submission to the Commission of Inquiry into Forensic DNA Testing (**Commission of Inquiry**):

   (a) Statement in response to Notice 2022/00070 dated 9 August 2022;

   (b) Statement in response to Notice 2022/00090 dated 24 August 2022;

   (c) Submission dated 7 September 2022; and

   (d) Statement in Response to Notice 2022/00173 dated 21 October 2022.

2. On 31 October 2022 I attended an interview with Counsel Assisting the Commission of Inquiry.

3. Although the questions in the Schedule of topics for statement to Notice 2022/00328 are in relation to the National DNA Program for Unidentified and Missing Persons, I understand from my interview with Counsel Assisting that it would be of benefit to the Commission of Inquiry for me to provide information about my involvement with familial testing and missing persons cases, which is distinct from the Program, as discussed below.

Question 1 – Provide a general overview of the purpose and operation of the National DNA Program for Unidentified and Missing Persons ('the Program').

[redacted] ..... [redacted] .....

Sharon Johnstone Witness

4. The Program is a national program which is based in Canberra and operates independently of state and territory law enforcement agencies and forensic services laboratories, including the Queensland Health Forensic and Scientific Service (**QHFSS**).

5. Information about the Program can be found at the following link: https://www.missingpersons.gov.au/support/national-dna-program-unidentified-and-missing-persons. This information is consistent with my understanding that:

   (a) The Program was launched in July 2020 by the Australian Federal Police (**AFP**) National Missing Persons Coordination Centre (**NMPCC**). The NMPCC coordinates a national response to missing persons in Australia; and

   (b) The Program operates by working collaboratively with police, coronial and forensic agencies across Australia to resolve cold cases, and families of missing persons who are integral to a DNA-led identification effort such as this.

Question 2 – Explain your involvement in the Program, with respect to its establishment, day-to-day operations and future tasks.

6. I was not involved in any way with the establishment of the Program, and I have no involvement in the Program's day-to day operations or future tasks.

7. A component of the work that I do in my role with QHFSS is in respect of familial DNA searching for the purpose of potentially identifying missing persons and human remains. My involvement in this work has been as follows:

   (a) Since 2012, I have been the laboratory representative for the DNA User Advisory Group (**UAG**). The DNA UAG consists of representatives from all state and territory DNA laboratories and each police jurisdiction. The DNA UAG meets approximately every six months to discuss matters in relation to the use of the National Criminal Investigation DNA Database (**NCIDD**), NCIDD-Integrated Forensic Analysis (**NIFA**) and other related topics. The NCIDD is a national DNA database maintained by the Australian Criminal Intelligence

[redacted] ..... [redacted] .....

Sharon Johnstone Witness

Commission (**ACIC**) for conducting national searches of autosomal STR profiles to link to crime scene samples and unidentified human remains (**UHR**) that may relate to missing persons cases. It is usual for a NMPCC representative to attend these meetings to provide the DNA UAG with updates on their work and capability. It is through these UAG meetings that I receive updates about the Program.

(b) The familial searching software capability became a focus for the DNA UAG from 2013, and increasingly from 2016 after the group engaged with the software provider of Bonaparte for the development of the NIFA software.

(c) I have been involved in the design team for NIFA assisting ACIC along with laboratory representatives from New South Wales, South Australia and the Northern Territory. This team has advised ACIC and performed UAT (User Acceptance Testing) testing when required. This work involves testing and familial searching of Crime Scene and UHR samples against the NCIDD, Disaster Victim Identification (**DVI**) capability and whole pedigree comparisons to NCIDD.

(d) I have had a few meetings with the Queensland Police Service (**QPS**) missing persons unit to explain the function and capability of NIFA.

8. Familial DNA searching is not a significant body of work for the QHFSS laboratory. Presently, the QHFSS laboratory has:

(a) eight UHRs that have been uploaded to the NCIDD; and

(b) approximately three outstanding requests from QPS in respect of familial search requests on NIFA.

Question 3 – If not addressed above, explain what is involved in participating in the Program from QHFSS's perspective.

9. My answer to this question is addressed in my answer to question 2 above.

[redacted] ..... [redacted] .....

Sharon Johnstone Witness

10. The work involved in familial DNA searching at QHFSS is as follows:

    (a) the creation of data files and checking the contents;

    (b) the addition of families into NIFA using pedigree information;

    (c) the addition of Crime Scene profiles into NIFA;

    (d) the reporting of search results in NIFA;

    (e) the reporting of possible missing person identifications;

    (f) any SOP updates required to document new workflows and extension of training if necessary; and

    (g) the training of new staff.

Question 4 – Outline who else at QHFSS is involved in the Program and the nature of their involvement.

11. As discussed above, no one at QHFSS is directly involved in the Program.

12. I have one reporting scientist, Jacqueline Wilson, who is trained to perform familial searching. To the extent that our other work allows, Ms Wilson and I are responsible for adding familial information to NIFA and the reporting of the results. I am currently the primary contact point for information received by QHFSS relating to familial searching and missing persons cases. Ms Wilson is trained to add information to NIFA, reactivate existing projects, obtain results and review and report results. Together we carry out all work relating to familial requests and review each other's work.

Question 5 – Estimate the time you devote to the Program on a weekly basis. If someone else is involved in the Program, also estimate the time they devote on a weekly basis.

13. As discussed above, I do not, nor does anyone else at QHFSS, devote any time to the Program, other than to receive updates approximately every six months from a NMPCC representative at DNA UAG meetings.

14. In terms of the amount of time I devote to missing persons work, I estimate that in 2022 I would have spent no more than a few days. Given that we work with each other to

[redacted] ..... [redacted] .....

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complete all tasks, I would estimate that Ms Wilson has spent a similar amount of time on missing persons work.

15. In terms of the amount of time I devote to familial searching, I estimate that Ms Wilson and I each spend approximately a few hours per fortnight. There is not a constant supply of this kind of work. Information sharing between agencies is sporadic, as are requests for familial searches or to re-run searches for cases where information is already loaded to NIFA. I estimate that I would receive a request for a familial search on average once a month. We recommend that searches are re-activated every six months and for some cases QPS has requested this reactivation and reporting.

16. The searching of existing cases is not an automatic process and requires manual activation that runs overnight. Each search takes a few hours to perform, with over two days of combined setup, results download and refining, and intel report and review. It is difficult to estimate a weekly load for this work due to its sporadic nature and because Ms Wilson and I generally do the work around our other duties. Remote access is not available to the NIFA system and therefore the use requires a physical presence in the laboratory that needs to be co-ordinated between myself and Ms Wilson.

Question 6 – Is there a backlog of work to complete on the Program? If so, explain the backlog and estimate the amount of time you would need to address it.

17. I am not able to comment on the Program's workload for the reasons discussed above.

18. In relation to familial searching within QHFSS, there are approximately three current requests from QPS. I do not consider there is a backlog which needs to be addressed because familial searching does not constitute a significant volume of work for QHFSS and the QPS do not impose deadlines for completion of familial searching.

19. Due to the infancy of the missing persons work there is a body of work still required to be completed to maximise the functions of the NIFA. Further engagement is required with the QPS to be able to identify relevant cases for testing and other relatives of missing persons to add to NIFA. Other work that needs to be completed is as follows:

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(a) the addition of families into NIFA using pedigree information;

(b) the development of reports from the first searches of families in NIFA;

(c) the development of a workflow for regular searching;

(d) the development of reporting of possible missing person identifications;

(e) any SOP updates required to document new workflows and extension of training if necessary; and

(f) the training of new staff.

Question 7 – Outline any challenges you, or the DNA Analysis Team more generally, face in undertaking the work required for the Program, including for example:

a. whether you have adequate time to devote to the Program outside of your other responsibilities and work load;

20. For the reasons discussed above, QHFSS does not undertake any work for the Program.

21. In terms of the familial searching work that I do at QHFSS, as discussed above my capacity to do the work varies from week to week depending on my workload and priority cases. It would be helpful to have devoted time for performing this work outside of my other responsibilities and workload.

22. I believe there would be benefits if I was able to work on these matters more regularly. I have been involved in the development of the capability to perform the familial DNA searches and I have a strong desire to continue to develop QHFSS's capabilities.

23. Collaboration between QHFSS and the QPS with respect to missing persons has been limited and ad hoc. There has also been difficulty due to staff turnover in the QPS missing persons unit.

24. Education is required for any QPS officer that may receive results of any search involving NIFA. This is because the NIFA function is very different to NCIDD. The capability of the system is not yet well known to QPS investigators, and understanding the differences is very important for the actioning of the results from familial searching.

b. whether there are adequate resources to meet internal and external expectations with respect to the Program; and

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25. As discussed above, no QHFSS resources are required with respect to the Program.

26. In terms of the familial searching work that I do at QHFSS, a significant challenge has been that it has taken a very long time for the NIFA software to be developed.

27. It took many years for the development of the software to be suitable for use in missing persons searches in accordance with individual state and territory legislation. The current NIFA version is 4.1. This version took two years of testing and 72 releases before it was stable and functioning correctly.

28. NIFA version 4.2 is due to replace version 4.1 and is expected to deliver additional functionality to NIFA. Version 4.2 was initially not going to be implemented because NCIDD and NIFA had been earmarked to be replaced with a new system (likely to be CODIS). Initial planning had anticipated the replacement system would be available within 12 months. This timeframe has since been extended and as an interim measure it has been decided that NIFA version 4.2 will be implemented.

29. The aim was to have NIFA version 4.2 implemented into the production site by June 2022. Version 4.2 was moved into the training environment so that the development team could perform User Acceptance Testing. Although this happened earlier this year (around May 2022) it was quickly reverted due to technical issues and instability of the system. Feedback received from ACIC last week indicates that their testing has identified further stability issues and further delays are expected.

30. I consider there is potential to expand the current scope of uses of NIFA to enhance its capabilities. Currently the focus is mostly on cold cases and long-term missing persons. There is potential to use the system as a next step of investigation for high priority cases where a NCIDD load is unsuccessful in generating a link. Only one or two cases have been run for a real time high priority case to date. There may be further interest and adoption by QPS in the future, depending on the level of success in test cases.

c. the way in which the other stakeholders approach the Program.

31. For reasons articulated previously, I am not able to assist with this question.

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32. All the facts and circumstances declared in my statement, are within my own knowledge and belief, except for the facts and circumstances declared from information only, and where applicable, my means of knowledge and sources of information are contained in this statement.

I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the *Oaths Act 1867*.

TAKEN AND DECLARED before me at Brisbane in the State of Queensland this 17th day of November 2022

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Sharon Johnstone Witness

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Sharon Johnstone Witness