

#### OFFICIAL: Sensitive – Legal Privilege Page 1 of 15 Statement of Senior Crime Scene Officer Kate REID In the matter of the homicide of Kenneth BRENNAN – Major Crime Folder 95/214

### NSW Police Force **EXPERT CERTIFICATE** Section 177, Evidence Act 1995 No. 25

In the matter of:	Homicide of Kenneth BRENNAN – Major Crime Folder 95/214
Place Statement Made:	Fingerprint Operations, Police Headquarters, Parramatta
Date:	9 June 2023

Name:	Kate Louise REID
Work Address:	Fingerprint Operations – Police Headquarters, Parramatta
Work Telephone:	
Occupation:	Senior Crime Scene Officer – Fingerprint Expert

#### STATES:

- This statement made by me accurately sets out the evidence that I would be prepared, if necessary, to give in court as a witness. The statement is true to the best of my knowledge and belief and I make itknowing that, if it is tendered in evidence, I will be liable to prosecution if I have willfully stated in it anything that I know to be false or do not believe to be true.
- 2. I make the following declarations:
  - I have read the Expert Witness Code of Conduct in Schedule 7 of the NSW Unform Civil Procedure Rules 2005 and I agree to be bound by the Code.
  - I have made all inquiries that I believe desirable and appropriate, and to the best of my knowledge, no matter of significance that I regard as relevant has been withheld from the court.
- 3. I hereby certify I am a Fingerprint Expert. I have specialised knowledge based on my training, experience and study of fingerprints since 2006. Refer to **Annexure 1** for a summary of my qualifications and experience.
- 4. For a glossary of terms used in this certificate see Annexure 2.

Stacey Janelle MASON

Sergeant

9 June 2023

 On 2 June 2023, I received a written request to the Office of General Counsel, NSW Police Force from Enzo CAPOREALE, Crown Solicitor, information regarding fingerprint testing in relation to the death of Kenneth BRENNAN, to assist the Special Commission of Inquiry into LGBTIQ hate crimes. This letter was dated 31 May 2023.

Witness:

Signature:

Kate Louise REID Senior Crime Scene Officer 9 June 2023



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- On 5 June 2023, I retrieved Fingerprint Major Crime Folder 95/214 from the files maintained by the Forensic Evidence and Technical Services Command, NSW Police Force. This folder contained files related to the following fingerprint examinations:
  - Forensic Case Number 313807 Latent and Crime Scene Fingerprint Examination Form and a set of images containing latent fingerprints for the examination of Onslow Avenue, ELIZABETH BAY by Retired Senior Constable Colin GLYNN and Retired Senior Constable Phillip STONE on 12 June 1995.
  - Forensic Case Number 313808 Latent and Crime Scene Fingerprint Examination Form and aset of images containing latent fingerprints for the examination of Conslow Avenue, ELIZABETH BAY by Retired Senior Constable Colin GLYNN and Retired Senior Constable Phillip STONE on 16 June 1995.
  - Index No. 9530682 Copy of examination details from the Forensic Crime Scene Register for the examination of exhibit number C251017 – 2x "Mates" condoms, by Retired Senior Constable Phillip STONE on 21 June 1995.
  - Index No. 9531143 Latent Unit Fingerprint Examination Form for the examination of exhibit number C251063 – 1x cardboard carving knife packet and plastic sheath by Retired Senior Constable Phillip STONE on 28 June 1995.
  - Index No. 9531144 Latent Unit Fingerprint Examination Form of exhibit number C251046 1x Strepsils packet, by Retired Senior Constable Phillip STONE on 28 June 1995.
  - Forensic Case Number 2935884 Copy of Evidence Recovery Laboratory Examination Sheet and a set of images containing latent fingerprints for the examination of exhibit number X0000643796– 1x blood-stained Namco frypan, exhibit number X0000643807 – 1x kitchen knife blade (heavily bent), exhibit number X0000643806– 1x brown plastic knife handle, by Crime Scene Officer Michael WHYTE on 29 March 2016.
- 7. On 5 June, I retrieved records from the Forensic Crime Scene Register, maintained by Forensic Evidence and Technical Services Command, NSW Police Force for the following fingerprint examination:
  - Index No. 9622869 examination details for the examination of exhibit number C300864– 1x white handled knife, by Retired Senior Constable Jeremy CLARK on 12 March 1996.

Witness:

Signature:

Stacey Janelle MASON Sergeant 9 June 2023

Kate Louise REID Senior Crime Scene Officer

9 June 2023



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- 8. Records from Major Crime Folder 95/214 and the Forensic Crime Scene Register indicate no fingerprints were developed during the examinations for Index No. 9530682 (exhibit number C251017), Index No. 9531143 (exhibit number C251063), Index No. 9541144 (C251046) and Index No. 9622869 (C300864).
- 9. Records from Major Crime Folder 95/214 indicate in June 1995, all fingerprint graphs for Forensic Case Number 313807 were eliminated to Kenneth BRENNAN and a set of fingerprints bearing the name NP215 NP215
- 10. Records from Major Crime Folder 95/214 indicate in June 1995, three fingerprint graphs for Forensic Case Number 313808 were eliminated to a set of fingerprints bearing the name NP215 One fingerprint graph "B2" was "traced" and searched on the Automated Fingerprint Identification System (AFIS) and was not identified. Fingerprint Graph "B2" was compared to the following persons and not identified:
  - A set of record fingerprints bearing the nar

A set of record fingerprints bearing the name	NP214
A set of record fingerprints bearing the name	NP189

- 11. Records from Major Crime Folder 95/214 indicate in March 1996, fingerprint graph "B2" for Forensic Case Number 313808, was compared to a set of record fingerprints bearing the name **NP190** and not identified.
- 12. Records from Major Crime Folder 95/214 indicate a review was conducted in November 1998 at the request of Strike Force Lincoln. Fingerprint graph "B2" for Forensic Case Number 313808, was 're-traced' and searched on the Automated Fingerprint Identification System (AFIS) and was not identified. Fingerprint graph "B2" was also compared to the following persons and not identified:
  - A set of record fingerprints bearing the name NP217
  - A set of record fingerprints bearing the name NP240
  - NP201 A set of record fingerprints bearing the name
- 13. Records from Major Crime Folder 95/214 indicate in February 1999, fingerprint graph "B2" for Forensic Case Number 313808, was compared to a set of record fingerprints bearing the name NP216 and not identified. NP216
- 14. Records from Major Crime Folder 95/214 indicate a review was conducted in November 2012, at the request of Detective Grant DAVIDSON from the Unsolved Homicide Team. Fingerprint graph "B2" for

Witness:

Signature:

Stacey Janelle MASON Sergeant 9 June 2023

Kate Louise REID Senior Crime Scene Officer 9 June 2023

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**Forensic Case Number 313808,** was searched on the National Automated Fingerprint Identification System (NAFIS) and was not identified.

- 15. Records from Major Crime Folder 95/214 and the Exhibits Forensic Information and Miscellaneous Property System (EFIMS) maintained by the NSW Police Force, indicate in April 2016, the fingerprint "F1" in the images bearing Forensic Case Number 2935884 was not suitable for comparison or searching on the National Automated Fingerprint Identification System (NAFIS).
- 16. Records from Major Crime Folder 95/214 indicate a review was conducted in February 2022. Fingerprint graph "B2" for Forensic Case Number 313808 was searched on the National Automated Fingerprint Identification System (NAFIS) and was not identified. Fingerprint Graph "B2" was compared to the following persons and not identified:
  - A set of record fingerprints bearing the name
     NP206
  - A set of record fingerprints bearing the name NP207
  - NP208 or NP208 does not have prints on record for comparison.
- 17. Records from Major Crime Folder 95/214 indicate a review was conducted in 2016, at the request of Detective Sergeant Rowena CLANCY for Strike Force SKARRATT. Fingerprint Graph "B2" for Forensic Case Number 313808 was compared to the following persons and not identified:

A set of record fingerprints bearing the name	NP190
A set of record fingerprints bearing the name	NP188
A set of record fingerprints bearing the name	NP189
A set of record fingerprints bearing the name	NP215
A set of record fingerprints bearing the name	NP214
A set of record fingerprints bearing the name	NP200

18. On 5 June 2023, I conducted searches of fingerprint graph "B2" appearing in the images from Forensic Case Number 313808 against the National Automated Fingerprint Identification System (NAFIS). As a result of this search, fingerprint graph "B2" for Forensic Case Number 313808 was not identified.

Witness:

Stacey Janelle MASON

Sergeant

9 June 2023

Signature:

Kate Louise REID Senior Crime Scene Officer 9 June 2023

9 June 2023



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- 19. On 5 June 2023, I retrieved the following sets of fingerprint records from the Major Crime Fingerprint folder 95/214:
  - Two (2) sets of record fingerprints with the details Unknown Male, Morgue No. E50419
  - Two (2) sets of record fingerprints bearing the name **NP215** I then retrieved a record set of fingerprints for this person from the National Automated Fingerprint Identification System (NAFIS).
  - A set of record fingerprints bearing the name NP190
  - A set of record fingerprints bearing the name NP214
- 20. On 5 June 2023, I retrieved the following sets of fingerprint records from theNational Automated Fingerprint Identification System (NAFIS):

**NP189** 

NP188

**NP200** 

NP208

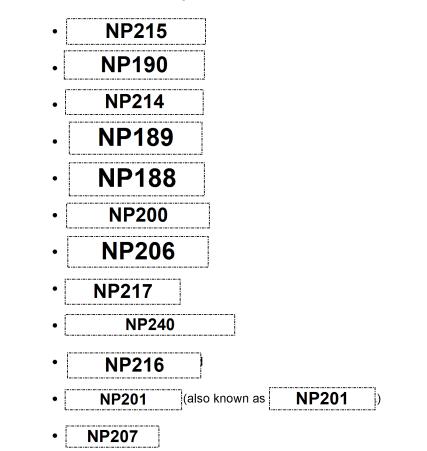
- A set of record fingerprints bearing the name
- A set of record fingerprints bearing the name
- A set of record fingerprints bearing the name
- 21. On 9 June 2023, I retrieved the following sets of fingerprint records from the NationalAutomated Fingerprint Identification System (NAFIS):
- A set of record fingerprints bearing the name NP206
  A set of record fingerprints bearing the name NP217
  - A set of record fingerprints bearing the name
     NP240
  - A set of record fingerprints bearing the name NP216
  - A set of record fingerprints bearing the name NP201 (also known as NP201)
  - A set of record fingerprints bearing the name NP207
- There were no fingerprints on record for the name NP208 or

Witness:	Aloo	Signature:	Reid	
	Stacey Janelle MASON		Kate Louise REID	
	Sergeant		Senior Crime Scene Officer	
	9 June 2023		9 June 2023	



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- 22. Between 7 June 2023 and 9 June 2023, I carefully compared all the fingerprints appearing in the images bearing Forensic Case Numbers 313807 and 313808 with the record prints of the following persons:
  - Unknown Male, Morgue No. E50419 ٠



I utilised the ACE-V methodology to analyse, compare and evaluate the latent and record fingerprint impressions. This comparison was made by placing those images, one at a time, side by side with those fingerprint impressions, and referring backwards and brwards between them. I compared pattern type and ridge flow, friction ridge characteristics, their relative position to each other and the number of intervening ridges between those characteristics. The comparison process was carried out systematically and sequentially until all available friction ridge detail had been compared, and a conclusion determined.

Witness:

Signature:

Stacey Janelle MASON Sergeant 9 June 2023

Kate Louise REID

Senior Crime Scene Officer 9 June 2023



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23. In my opinion, which is based wholly or substantially on my specialised knowledge as a fingerprint expert using the ACE-V methodology, I have reached the following conclusions:

Forensic Case Number 313807 Examination of Onslow Avenue, ELIZABETH BAY by Retired Senior Constable Colin GLYNN and Retired Senior Constable Phillip STONE on 12 June 1995.					
Graph	Location	Conclusion	Person	Area	
W1	Mirror in hall	Identified	Unknown Male, Morgue No. E50419	Right palm	
W2	Glass in bedroom on bedside table	Identified	Unknown Male, Morgue No. E50419	Right index and right middle fingers	
B1	Inside of front door	Identified	NP215	Left thumb	
B2	Inside of front door	Identified	NP215	Right index and right middle fingers	

Forensic Case Number 313808 Examination of Onslow Avenue, ELIZABETH BAY by Retired Senior Constable Colin GLYNN and Retired Senior Constable Phillip STONE on 12 June 1995.					
Graph	Location	Conclusion	Person	Area	
B1	Inside of wardrobe door	Identified	NP215	Left thumb	
B2	Inside of wardrobe door	Not Identified			
В3	Inside of entrance door	Identified	NP215	2x left middle fingers	
B4	Inside of entrance door	Identified	NP215	Left palm	
Witness: Signature: Red				Rend	
Stacey Janelle MASON		Kate Louise REID			
Sergeant 9 June 2023		Senior Crime Scene Officer 9 June 2023			



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- 24. On 7 June 2023, I carefully analysed the fingerprint appearing in the images bearing Forensic Case Number 2935884. In my opinion, which is based wholly or substantially on my specialised knowledge as a fingerprint expert using the ACE-V methodology, I have reached the conclusion the fingerprint graph "F1" appearing in images from Forensic Case Number 2935884 on the curved exterior section of the frypan was not suitable for any comparison due to insufficient detail in the fingerprint.
- 25. The underlying scientific principles, the methodology used to reach the conclusion/s above and the various factors to be considered when interpreting fingerprint evidence are outlined in **Annexure 3**.
- 26. Fingerprint Operations, NSW Police Force is accredited by the National Association of Testing Authorities (NATA) as meeting the requirement specified by the Australian and International Standard (AS ISO/IEC 17025) for the competence of forensic laboratories (NATA Accreditation Number 15184). Accreditation requires adherence to an approved quality assurance system and participation in an external proficiency testing program.
- 27. I hereby give notice under the Criminal Procedure Act 1986, that the proposed exhibits, which have been indicated in this Certificate, may be inspected at Fingerprint Operations, Forensic Evidence and Technical Services Command, NSW Police Headquarters, Level 4B, 1 Charles Street, Parramatta at a mutually agreeable time.

Witness:

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Stacey Janelle MASON

Sergeant

9 June 2023

Signature:

Kate Louise REID Senior Crime Scene Officer 9 June 2023

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#### ANNEXURE 1

EXPERT QUALIFICATIONS IN THE SCIENCE OF FINGERPRINTS

Senior Crime Scene Officer Kate Louise REID

I have been attached to New South Wales Police Force Fingerprint Operations, Forensic Services Group since February 2009. Between September 2006 and February 2009, I performed duties as a Scene of Crime Officer at the Blue Mountains Local Area Command. During this time, I have acquired extensive training, knowledge and practical experience in the Science of Fingerprints.

My relevant qualifications include:

- Certificate of Expertise in the Science of Fingerprints issued and accredited by the Australasian Forensic Field Sciences Accreditation Board (AFFSAB); now known as the Australasian Forensic Science Assessment Body (AFSAB)
- Bachelor of Science (Forensic Science), from the University of Western Sydney
- Vocational Graduate Certificate of Public Safety (Forensic Investigation), from the Canberra Institute of Technology
- Advanced Diploma of Public Safety (Forensic Investigation), from the Canberra Institute of Technology
- Diploma of Public Safety (Forensic Investigation), from the Canberra Institute of Technology
- Certificate IV in Crime Scene Examination, from the Canberra Institute of Technology
- *Certificate of Completion, Advanced Chemical Enhancement and Detection Techniques* New South Wales Forensic Services Group; Training and Development Services.
- Certificate of Completion, Ridgeology Comparison Techniques Course New South Wales Forensic Services Group; Training and Development Services.
- *Certificate of Completion, Palm Print Comparison Techniques Course*, New South Wales Police Forensic Services Group; Training and Development
- Certificate of Completion, Digital Crime Scene Photography Course, New South Wales Forensic Services Group, Training and Development
- Certificate of Completion, Fingerprint Induction Program, facilitated by the New South Wales Police

Witness:

Stacey Janelle MASON

Sergeant

9 June 2023

Signature:

Kate Louise REID Senior Crime Scene Officer 9 June 2023



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I have also gained extensive practical experience in the Science of Fingerprints while performing duties within Fingerprint Operation, where I have:

- Classified, searched, compared and identified latent finger and palm print impressions developed at crime scenes. I have also passed an annual latent print identification proficiency test in accordance with the standards set by the National Association of Testing Authorities of Australia (NATA);
- Classified, searched, compared and identified inked and livescan finger and palm print impressions on fingerprint ten print forms, utilising both computerised and manual classification systems;
- Examined and managed crime scenes, including many of a very serious and complex nature, and have developed numerous finger and palm print impressions that have been identified.
- Examined deceased persons to obtain finger and palm print impressions for the purposes of identification;

I have additional practical experience from performing duties at the Pemulwuy Laboratories (responsible for the specialised laboratory examinations of evidence for fingerprints using special chemical development and enhancement techniques) where I examined items of evidence and developed finger and palm print impressions that have been identified.

At the completion of my training, I successfully completed various written and oral examination set by the Australasian Forensic Field Sciences Accreditation Board (AFFSAB). I was certified by this panel and issued a Certificate of Expertise in the Science of Fingerprints recognising this achievement.

On numerous occasions I have lectured and trained colleagues in various aspects of the science of fingerprints. Furthermore, I have read and studied many books and manuals pertaining to the science of fingerprints, and I maintain an informed knowledge of current issues and new developments within the fingerprint science by reading articles and journals concerned with the field of forensic fingerprint identification.

I have attended NSW Police Force Fingerprint Expert Conferences in 2015 held at HMAS Penguin, in 2017 held at Holsworthy Army Barracks and in 2019 and 2022 held at the Mantra Hotel, Parramatta.

Witness:

Stacey Janelle MASON

Sergeant

9 June 2023

Signature:

Kate Louise REID Senior Crime Scene Officer 9 June 2023

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#### ANNEXURE 2

#### GLOSSARY OF TERMS

**Crime Scene Officer** – An examination officer who collects forensic evidence at complex (major) crime scenes and may also be qualified to conduct fingerprint comparisons. The minimum qualification for a Crime Scene Officer is completion of the Forensic Investigator 1 Course (or equivalent) facilitated by NSW Police Force Forensic Evidence and Technical Services Command.

**Fingerprint** – The intricate design of the friction ridge skin found on the underside of the fingers, palm, bes or feet. The word fingerprint is also a generic term used to describe all impressions of friction ridge skin.

**Graph** – A label used for recording purposes to indicate the location of fingerprint evidence developed at crime scenes or on evidence examined in a laboratory. F1 is the first fingerprint developed during the examination; F2 is the second fingerprint developed during the examination, etc.

Latent fingerprint – The impression left on a surface when contact is made with a fingerprint. Latent fingerprints are normally invisible and are mainly comprised of the residue on the skin, which may include natural perspiration and/or contaminants from other sources (e.g. moisturiser or food residue). Various development techniques are then applied (e.g. fingerprint powder or chemicals) to the fingerprint in order to make it visible.

**NAFIS** – The National Automated Fingerprint Identification System. This is a computerised database of fingerprint records that is used to search and store both record and latent fingerprints. Although NAFIS is a useful tool in searching latent fingerprints, it does not establish a fingerprint identification– this function is performed by a fingerprint expert.

**NATA** – National Association of Testing Authorities (NATA) is recognised by the Commonwealth government as the sole national accreditation body for establishing and maintaining competent laboratory practice

**Record Fingerprint** – A set of fingerprint impressions collected directly from a person for the purpose of identification. In most circumstances this is comprised of an impression from each of the ten fingers and an impression of each palm. These impressions are most commonly recorded on a 'Livescan' electronic fingerprint device, however can also be recorded using ink and paper.

Scene of Crime Officer – An examination officer who collects forensic evidence at non-complex (volume) crime scenes. The minimum qualification for a Scene of Crime Scene Officer is completion of the Forensic Investigator 1 Course (or equivalent) facilitated by NSW Police Force, Forensic Evidence and Technical Services Command.

Witness:

Stacey Janelle MASON

Sergeant

9 June 2023

Signature:

Kate Louise REID Senior Crime Scene Officer 9 June 2023



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#### **ANNEXURE 3**

#### SCIENTIFIC PRINCIPLES

#### FUNDAMENTAL PRINCIPLES OF FINGERPRINT IDENTIFICATION

Fingerprint identification involves the assessment of impressions made by friction ridge skin on the underside of the fingers, palms and feet. All findings are premised on three fundamental principles that are supported by extensive bodies of research and empirical testing<sup>1</sup>:

- Friction ridge skin is so highly variable that it is not duplicated in another person or another region of the same person (uniqueness).
- Friction ridge skin is permanent and remains unchanged for the life of a person (permanence).
- Fingerprint pattern types vary within limits to allow for systematic classification.

#### FINGERPRINT IDENTIFICATION METHODOLOGY: ACE-V

Fingerprint examiners employ the *Analysis, Comparison, Evaluation and Verification (ACE-V)* methodology<sup>2</sup> when analysing fingerprint impressions. The phases of the ACE-V methodology are as follows.

*Analysis* is the assessment of a friction ridge impression to determine suitability for comparison. This incorporates the interpretation of pattern type, friction ridge path and friction ridge detail. Other factors considered include clarity, surface type, development method and distortion.

*Comparison* is the process of observing friction ridge detail in two impressions to determine whether or not there is agreement. This systematic, side-by side comparison process is based upon the appearance, sequence and spatial relationship of the friction ridge detail.

*Evaluation* is the process of reaching a conclusion based on the quality and quantity of information observed in the analysis and comparison phases. There are several possible conclusions that can be drawn:

• Identified: The two fingerprint impressions were made by the same person.

Witness:

Stacey Janelle MASON

Sergeant

9 June 2023

Signature:

Kate Louise REID Senior Crime Scene Officer 9 June 2023

<sup>&</sup>lt;sup>1</sup> For studies supporting uniqueness and permanency of friction ridge skin, see: Organisation of Scientific Area Committees (OSAC) - Friction Ridge Subcommittee 2017, Guideline for the Articulation of the DecisionMaking Process for the Individualization in Friction Ridge Examination (Latent/Tenprint). Available from:https://www.nist.gov/topics/forensic-science/friction-ridge-subcommittee.
<sup>2</sup> Ashbaugh, DR 1999, Quantitative-Qualitative Friction Ridge Analysis: An Introduction to Basic and Advanced Ridgeology CRC Press, New York Boca Raton, pp. 87-148.



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- Not Identified: This conclusion can take one of two forms:
  - o Exclusion: The two fingerprint impressions were not made by the same person.
  - Insufficient: There is insufficient clear friction ridge detail in the impression/s to conduct a comparison.
- **Inconclusive**: Following the comparison, there is insufficient friction ridge information in the latent fingerprint and/or the record fingerprint to identify or exclude the person as being the source of the latent fingerprint.

*Verification* is the independent analysis, comparison and evaluation of the friction ridge detail carried out by another qualified fingerprint examiner. In the NSW Police Force - Forensic Evidence and Technical Services Command, the verification step is undertaken by a designated Verification Expert, who is a senior, practicing fingerprint expert appointed to that role based on their skills, knowledge, training and experience in fingerprint analysis. Where the conclusions of the two experts are in agreement, the NSW Police Force – Forensic Evidence and Technical Services Command will report the unanimous decision.

In the majority of cases, the ACE-V process produces a unanimous conclusion between the two fingerprint experts. In rare cases where there are differing opinions between two experts, the case is referred to a senior fingerprint expert for a final determination. Following this assessment, the NSW Police Force – Forensic Evidence and Technical Services Command will report the consensus decision.

The ACE-V methodology, as applied by qualified, practising fingerprint experts, has been the subject of method validation studies and has been shown to be accurate, repeatable and reproducible.<sup>3</sup>

#### STATEMENT OF LIMITATIONS OF RESULTS

The conclusions expressed in this report are subject to certain inherent limitations of fingerprint evidence and the ACE-V methodology.

#### Potential for Error

Qualified, practicing fingerprint examiners have demonstrable and specialised abilities to accurately detect discriminating features in friction ridge skin impressions. The accuracy of qualified, practicing fingerprint experts in comparing and identifying friction ridge skin impressions has been demonstrated to significantly

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Signature:

Kate Louise REID Senior Crime Scene Officer 9 June 2023

<sup>&</sup>lt;sup>3</sup>Langenburg, G 2012, A Critical Analysis and Study of the ACE-V Process. Ph.D. Thesis, University of Lausanne, Switzerland; Pacheco, I et al, 2014, 'Miami-Dade Research Study for the Reliability of the ACE-V Process: Accuracy & Precision in Latent Fingerprint Examinations', *NIJ Report (Award 2010-DN-BX-K268)*; Ulery, B et al, 2011, 'Accuracy and Reliability of Forensic Latent Print Decisions', *Proceedings of the National Academy of Sciences* vol. 108, no. 19, pp. 7733-7738.

Stacey Janelle MASON Sergeant 9 June 2023

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exceed that of people who are untrained (i.e. novices).<sup>4</sup> However, the comparison of fingerprint impressions is a task conducted by humans, and subsequently there exists a potential of error.

To mitigate risk of error, NSW Police Force - Forensic Evidence and Technical Services Command incorporates strict peer review practices requiring independent verification of all fingerprint identifications by a minimum of one appointed Verification Expert. My conclusion(s) is not a statement of fact, but one of expert opinion.

#### Absence of Fingerprints

It is not always possible to detect fingerprints which are suitable for analysis, even if a person has handled an object or touched a surface. Some explanations for this include:

- Insufficient perspiration or residue on the hands to leave a detectable α identifiable latent fingerprint.
- The poor condition of the receiving surface (e.g. rough, dirty or otherwise unsuitable surface).
- Handling an object in a manner that smears or obliterates any fingerprint on that object.
- Various environmental factors affecting the fingerprint after it has been placed on the surface (e.g. heat, moisture, sunlight, etc.).
- Measures were taken to prevent fingerprints being left on an object (e.g. the person wore gloves).

#### Age of Fingerprints

There is presently no scientific means of determining the age of a latent fingerprint. In some circumstances, a latent fingerprint may remain detectable and/or identifiable for a considerable length of time, whilst in others it will degrade relatively quickly. Factors which influence this variability include:

- The composition of the latent fingerprint. If it has a high content of fats or oils, it will last a longerperiod of time.
- A latent impression which is comprised of a large amount of fingerprint residue will more likely survive for a longer period of time than one with a smaller amount of residue.

Witness:	ALO-	Signature:	Red	
	Stacey Janelle MASON		Kate Louise REID	
	Sergeant		Senior Crime Scene Officer	
	9 June 2023		9 June 2023	

<sup>&</sup>lt;sup>4</sup>Tangen, J, Thompson, M & McCarthy, D, 2011, 'Identifying Fingerprint Expertise', *Psychological Science*, vol. 22, no. 8, pp. 995-997; Thompson, M, Tangen, J & McCarthy, D, 2014, 'Human Matching Performance of Genuine Crime Scene Latent Fingerprints', *Law and Human Behaviour*, vol. 38, no. 1, pp. 84-93.



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- The type and condition of the receiving surface may affect the detectable life of a latent impression (e.g. porosity, cleanliness and chemical composition).
- If a fingerprint is positioned on a surface which is handled regularly it will more likely be damaged and may only last a limited period of time.
- Fingerprints which are exposed to sun, wind or rain will generally last a shorter period of time than those protected from the elements.
- The shorter the period of time between the deposit of a latent fingerprint and the examination of the surface on which it is deposited, the greater the chance of detection.

Witness:

Stacey Janelle MASON

Sergeant

9 June 2023

Signature:

Kate Louise REID Senior Crime Scene Officer 9 June 2023