DECLARATION OF CRIMINALIST

- I, Marc Scott Taylor, declare as follows:
- I am a court-qualified expert in the fields of Criminalistics, Serology, and DNA analysis, and have been appointed and have testified as an expert on both polymerase chain reaction (PCR) and restriction fragment length polymorphism (RFLP) based DNA analysis.
- 2. I have been appointed by the courts of various jurisdictions in California and other states to consult on and/or perform PCR- and RFLP-based DNA typing in criminal cases in excess of 3,500 times, and I have testified for both the defense and prosecution in many of these cases.
- 3. I am the Director of the forensic science laboratory of Technical Associates, Inc.
- 4. We perform DNA analysis on a variety of forensic specimens, and the results of our DNA profiling, my conclusions, and those of my staff have been accepted by courts in numerous jurisdictions in California and other states.
- 5. I regularly attend forensic science meetings and stay abreast of the current literature in this field.
- My laboratory has performed extractions of DNA and PCR-based DNA typing on in excess of 30,000 samples.
- 7. The systems currently used in my lab are the various PCR-based Short

TAC04431.D.220120607a.doc

Tandem Repeat (STR) multiplex systems including the AmpFlSTR Identifiler, MiniFiler, Profiler Plus, and COfiler systems, including sex determination utilizing the Amelogenin gene, as well as Y-STR DNA analysis.

- 8. Our laboratory procedures require participation in periodic external proficiency tests to verify the accuracy of our DNA typing, and these surveys have affirmed the validity of our procedures and the accuracy of our DNA typing results.
- 9. I developed the multiplex system that allows the co-amplification of the Amelogenin gene in a single reaction with the six Polymarker loci; my laboratory has performed validation on this multiplex system; and the manuscript describing this technique and its validation has been published by the peer reviewed Journal of Forensic Sciences, January 1997.
- 10. I have been certified as DNA Technical Leader/Technical Manager by unanimous decision of the Credentials Review Committee for the American Society of Crime Laboratory Directors (ASCLD).
- 11. In addition to this, I have presented numerous papers and posters at scientific meetings dealing with many of the techniques developed by my laboratory for DNA typing. The techniques developed by my laboratory and me have been adopted and are utilized in numerous laboratories across the United States.
- 12. I have implemented the systems in use for DNA analysis at Technical Associates, Inc., which include the development of new procedures for the

Initial(

TAC04431.D.220120607a.doc

Page 2 of 4

extraction of DNA from certain specimen types to increase the quantity and quality of DNA isolated.

- 13. A primary function of my laboratory is testing and retesting of evidence in criminal cases using serological and DNA based procedures.
- 14. I have been apprised of the issues associated with the evidence bloodstains on an item of evidence described as denim shorts. I was informed that in previous testing a mixture of genetic markers from at least two individuals was detected in a sample collected from a bloodstained area of the shorts. The issue is whether the bloodstain that was previously tested from the shorts is a mixture of blood that was deposited in one event, or an overlay of blood from one source on top of blood from another source.
- 15. Based on my experience with blood deposition and the examination and testing of blood stain evidence, it is possible to determine if the blood was deposited separately or contemporaneously as a mixture, depending on the nature of the stains and the manner in which the stain or stains was deposited.
- 16. The examination techniques utilized to collect the samples for testing to determine how the deposition took place were available in 1984. DNA testing should be utilized with these samples because of the greater specificity afforded by this current technology.

Initial

17. I believe that upon examination of the evidence in question I may be able to determine if the bloodstain is the result of contemporaneous deposit of a mixed sample, or separate deposits of blood from different sources.
However, in order to be able to provide an answer to this question, I must be able to examine the evidence at my laboratory.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge. Executed this 7th day of June 2011, at Ventura, California.

Marc Scott Taylor, President Technical Associates, Inc.