

State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion to Exclude False Testimony about Evidence Destroyed by the State

EXHIBIT A

(Photo, white cotton T-shirt)



State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion to Exclude False Testimony about Evidence Destroyed by the State

EXHIBIT B

(SLED DNA analysis report, June 25, 2021)

SOUTH CAROLINA LAW ENFORCEMENT DIVISION FORENSIC SERVICES LABORATORY REPORT

HENRY D. MCMASTER
Governor



MARK A. KEEL
Chief

June 25, 2021

David Owen, III
South Carolina Law Enforcement Division
4400 Broad River Road
Columbia, SC 29210

DNA ANALYSIS

SLED LAB: L21-09074
Your Case No: 31210061
Incident Date: 6/7/2021
[V-Deceased] Paul Murdaugh
[V-Deceased] Margaret Murdaugh
[W] Richard Murdaugh

This is an official report of the South Carolina Law Enforcement Division Forensic Services Laboratory and is to be used in connection with an official criminal investigation. These examinations were conducted under your assurance that no previous examinations of person(s) or evidence submitted in this case have been or will be conducted by any other laboratory or agency.

Mark A. Keel, Chief
South Carolina Law Enforcement Division

COMPARISON STANDARDS

23 Buccal swabs from Margaret Murdaugh

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

24 Buccal swabs from Paul Murdaugh

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

26 Buccal swabs from Anthony Cook

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

27 Buccal swabs from Roger Davis

RESULTS:

- The DNA profile developed is suitable for use as a known standard.



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28 Buccal swabs from Rogan Gibson

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

29 Buccal swabs from Claude (C.B.) Rowe

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

74 Buccal swabs from Connor Cook

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

75 Known standard from Phillip Beach

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

76 Known standard from Renee Beach

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

77 Known standard from Robin Beach

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

78 Buccal swabs from John Murdaugh

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

79 Buccal swabs from Richard Alexander Murdaugh, Jr. (Buster)

RESULTS:

- The DNA profile developed is suitable for use as a known standard.



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80 Buccal swabs from Richard Alexander Murdaugh

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

81 Buccal swabs from Randy Murdaugh

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

82 Buccal swabs from Miley Altman

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

83 Buccal swabs from Morgan Doughty

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

ITEMS OF EVIDENCE

2 Cartridge case headstamped "S&B .300 AAC BLK" from Marker 2

3 Cartridge case headstamped "S&B .300 AAC BLK" from Marker 3

4 Cartridge case headstamped "S&B .300 AAC BLK" from Marker 4

5 Cartridge case headstamped "S&B .300 AAC BLK" from Marker 5

6 Cartridge case headstamped "S&B .300 AAC BLK" from Marker 6

7 Cartridge case headstamped "S&B .300 AAC BLK" from Marker 7

7.1 M-Vac collection from items 2-7

RESULTS:

- A partial DNA profile suitable for comparison was developed.
- Paul Murdaugh, Anthony Cook, Roger Davis, Rogan Gibson, Claude (C.B.) Rowe, Connor Cook,



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Phillip Beach, Renee Beach, Robin Beach, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), Richard Alexander Murdaugh, Randy Murdaugh, Miley Altman, and Morgan Doughty are excluded as the contributor.

- Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

- The DNA profile was interpreted as single source.
- Hp = Margaret Murdaugh contributed the DNA profile.
- Hd = An unidentified unrelated individual contributed the DNA profile.
- The DNA profile is approximately 510 billion (5.1E11) times more likely if Margaret Murdaugh contributed the profile than if an unidentified unrelated individual contributed the profile.

- 9 Fired shotshell headstamped "12 GA FEDERAL" from Marker 9
- 10 Fired shotshell headstamped "WINCHESTER 12 GA" from Marker 10
- 10.1 Swabs from entire exterior of items 9 & 10

RESULTS:

- Presumptive testing for blood was positive.
- A DNA profile suitable for comparison was developed.
- Margaret Murdaugh, Anthony Cook, Roger Davis, Rogan Gibson, Claude (C.B.) Rowe, Connor Cook, Phillip Beach, Renee Beach, Robin Beach, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), Richard Alexander Murdaugh, Randy Murdaugh, Miley Altman, and Morgan Doughty are excluded as the contributor.

- Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

- The DNA profile was interpreted as single source.
- Hp = Paul Murdaugh contributed the DNA profile.
- Hd = An unidentified unrelated individual contributed the DNA profile.
- The DNA profile is approximately 15 octillion (1.5E28) times more likely if Paul Murdaugh contributed the profile than if an unidentified unrelated individual contributed the profile.



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15 Swabs from camo Benelli 12 GA shotgun from receiver forward of the loading port

RESULTS:

- Presumptive testing for blood was positive.
- A DNA profile suitable for comparison was developed.
- Paul Murdaugh, Anthony Cook, Roger Davis, Rogan Gibson, Claude (C.B.) Rowe, Connor Cook, Phillip Beach, Renee Beach, Robin Beach, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), Randy Murdaugh, Miley Altman, and Morgan Doughty are excluded as contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set I:**
 - The DNA profile was interpreted as a mixture originating from two individuals.
 - Hp = Margaret Murdaugh and an unidentified unrelated individual contributed to the mixture.
 - Hd = Two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 670 octillion (6.7E29) times more likely if Margaret Murdaugh and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.
- **Proposition Set II:**
 - The DNA profile was interpreted as a mixture originating from two individuals.
 - Hp = Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.
 - Hd = Two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 10 quintillion (1.0E19) times more likely if Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.
- **Proposition Set III:**
 - The DNA profile was interpreted as a mixture originating from two individuals.
 - Hp = Margaret Murdaugh and Richard Alexander Murdaugh contributed to the mixture.
 - Hd = Two unidentified unrelated individuals contributed to the mixture.



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- The DNA profile is approximately 48 quidecillion ($4.8E49$) times more likely if Margaret Murdaugh and Richard Alexander Murdaugh contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

16 Swabs from barrel of camo Benelli 12 GA shotgun

RESULTS:

- Presumptive testing for blood was negative.
- The partial DNA profile developed is insufficient for interpretation.

17 Swabs from ext. door knob of storage room door

RESULTS:

- A DNA profile suitable for comparison was developed.
- Margaret Murdaugh, Anthony Cook, Roger Davis, Rogan Gibson, Claude (C.B.) Rowe, Connor Cook, Phillip Beach, Renee Beach, Robin Beach, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), Richard Alexander Murdaugh, Randy Murdaugh, Miley Altman, and Morgan Doughty are excluded as the contributor.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set:**
 - The DNA profile was interpreted as single source.
 - H_p = Paul Murdaugh contributed the DNA profile.
 - H_d = An unidentified unrelated individual contributed the DNA profile.
- The DNA profile is approximately 15 octillion ($1.5E28$) times more likely if Paul Murdaugh contributed the profile than if an unidentified unrelated individual contributed the profile.

19 White shirt from Richard Murdaugh

19.2 Cutting from exterior front, bottom edge of white shirt from Richard Murdaugh

RESULTS:

- Presumptive testing for blood was positive.
- A DNA profile suitable for comparison was developed.



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- Paul Murdaugh, Anthony Cook, Roger Davis, Rogan Gibson, Claude (C.B.) Rowe, Phillip Beach, Renee Beach, Robin Beach, Richard Alexander Murdaugh, Jr. (Buster), Randy Murdaugh, Miley Altman, and Morgan Doughty are excluded as contributors.

- Due to the relatedness of the contributors, no conclusions will be offered regarding John Murdaugh and Richard Alexander Murdaugh as possible contributors to the mixture.

- Likelihood Ratios (LR) for this profile were calculated using STRmix™.

- **Proposition Set:**

- The DNA profile was interpreted as a mixture originating from two individuals.

- Hp = Margaret Murdaugh and an unidentified unrelated individual contributed to the mixture.

- Hd = Two unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 460 octillion (4.6E29) times more likely if Margaret Murdaugh and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

- **Proposition Set II:**

- The DNA profile was interpreted as a mixture originating from two individuals.

- Hp = Connor Cook and an unidentified unrelated individual contributed to the mixture.

- Hd = Two unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 9 (1/1.1E-1) times more likely if two unidentified unrelated individuals contributed to the mixture than if Connor Cook and an unidentified unrelated individual contributed to the mixture.

20 **Pair of green shorts from Richard Murdaugh**

20.2 **Cutting from front, left interior pocket of pair of green shorts from Richard Murdaugh**

RESULTS:

- Presumptive testing for blood was positive.

- A DNA profile suitable for comparison was developed.

- Anthony Cook, Roger Davis, Rogan Gibson, Claude (C.B.) Rowe, Connor Cook, Phillip Beach, Renee Beach, Robin Beach, John Murdaugh, Randy Murdaugh, Miley Altman, and Morgan Doughty are excluded as contributors.



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- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set I:**
 - The DNA profile was interpreted as a mixture originating from three individuals.
 - Hp = Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
 - Hd = Three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 140 quadrillion ($1.4E17$) times more likely if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.
- **Proposition Set II:**
 - The DNA profile was interpreted as a mixture originating from three individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp = Richard Alexander Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), and an unidentified unrelated individual contributed to the mixture.
 - Hd = Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- Richard Alexander Murdaugh, Jr. (Buster) is excluded as a contributor to the mixture under the listed propositions.
- **Proposition Set III:**
 - The DNA profile was interpreted as a mixture originating from three individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp = Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture.
 - Hd = Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 5.1 sextillion ($5.1E21$) times more likely if Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture than if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.



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• **Proposition Set IV:**

- The DNA profile was interpreted as a mixture originating from three individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp = Richard Alexander Murdaugh, Paul Murdaugh, and an unidentified unrelated individual contributed to the mixture.
 - Hd = Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 25 quintillion (2.5E19) times more likely if Richard Alexander Murdaugh, Paul Murdaugh, and an unidentified unrelated individual contributed to the mixture than if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.

• **Proposition Set V:**

- The DNA profile was interpreted as a mixture originating from three individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp = Richard Alexander Murdaugh, Margaret Murdaugh, and Paul Murdaugh contributed to the mixture.
 - Hd = Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 2 quindecillion (2.0E48) times more likely if Richard Alexander Murdaugh, Margaret Murdaugh, and Paul Murdaugh contributed to the mixture than if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.

21 **Pair of red, yellow, and white tennis shoes from Richard Murdaugh**

21.2 **Cutting from left shoelace of pair of red, yellow, and white tennis shoes from Richard Murdaugh**

RESULTS:

- Presumptive testing for blood was positive.
- A DNA profile suitable for comparison was developed.
- Margaret Murdaugh, Paul Murdaugh, Anthony Cook, Roger Davis, Rogan Gibson, Claude (C.B.) Rowe, Connor Cook, Phillip Beach, Renee Beach, Robin Beach, John Murdaugh, Richard



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Alexander Murdaugh, Jr. (Buster), Randy Murdaugh, Miley Altman, and Morgan Doughty are excluded as the contributor.

- Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

- The DNA profile was interpreted as single source.
- Hp = Richard Alexander Murdaugh contributed the DNA profile.
- Hd = An unidentified unrelated individual contributed the DNA profile.
- The DNA profile is approximately 410 septillion (4.1E26) times more likely if Richard Alexander Murdaugh contributed the profile than if an unidentified unrelated individual contributed the profile.

22.1 Swabs from trigger of Item 22 shotgun (camo Benelli Super Black Eagle 3 SN:US73210E17)

RESULTS:

- The partial DNA profile developed is insufficient for interpretation.

22.2 Swabs from rear stock, front stock and ejection lever on Item 22 shotgun (camo Benelli Super Black Eagle 3 SN:US73210E17)

RESULTS:

- A DNA profile was developed.
- Due to the inability to determine the number of contributors, no further interpretation will be offered.

22.3 Swabs from head stamps of two (2) unfired shotgun shells with Item 22 shotgun (camo Benelli Super Black Eagle 3 SN:US73210E17)

RESULTS:

- No DNA profile was developed.

22.4 Debris from the right side of the Item 22 receiver (camo Benelli Super Black Eagle 3 SN:US73210E17)

RESULTS:

- Presumptive testing for blood was positive.



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- A DNA profile suitable for comparison was developed.
- Paul Murdaugh, Anthony Cook, Roger Davis, Rogan Gibson, Claude (C.B.) Rowe, Connor Cook, Phillip Beach, Renee Beach, Robin Beach, Richard Alexander Murdaugh, Jr. (Buster), Miley Altman, and Morgan Doughty are excluded as contributors.
- Due to the relatedness of the contributors, no conclusions will be offered regarding John Murdaugh, Richard Alexander Murdaugh, and Randy Murdaugh as possible contributors to the mixture.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set:**
 - The DNA profile was interpreted as a mixture originating from two individuals.
 - Hp = Margaret Murdaugh and an unidentified unrelated individual contributed to the mixture.
 - Hd = Two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 480 octillion (4.8E29) times more likely if Margaret Murdaugh and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

22.5 Debris from the left side of the Item 22 receiver, above manufacturer information (camo Benelli Super Black Eagle 3 SN:US73210E17)

RESULTS:

- Presumptive testing for blood was positive.
- A DNA profile suitable for comparison was developed.
- Anthony Cook, Roger Davis, Rogan Gibson, Claude (C.B.) Rowe, Connor Cook, Phillip Beach, Renee Beach, Robin Beach, Richard Alexander Murdaugh, Jr. (Buster), Miley Altman, and Morgan Doughty are excluded as contributors.
- Due to the relatedness of the contributors, no conclusions will be offered regarding Paul Murdaugh, John Murdaugh, Richard Alexander Murdaugh, and Randy Murdaugh as possible contributors to the mixture.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set:**
 - The DNA profile was interpreted as a mixture originating from two individuals.



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- Hp = Margaret Murdaugh and an unidentified unrelated individual contributed to the mixture.
- Hd = Two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 570 octillion (5.7E29) times more likely if Margaret Murdaugh and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

25.1 Swabs from sides of Item 25 cell phone

RESULTS:

- A partial DNA profile was developed.
- Due to the limited information obtained and the inability to determine the number of contributors, no further interpretation will be offered.

30 Mossberg Model 835 Ulti-Mag shotgun (S/N: UM613411) (previously on pool table) with one (1) unfired 12GA shotshell

RESULTS:

- Presumptive testing for blood was negative.

31 Browning Auto-5 Light Vector + Special Steel 12GA shotgun (S/N: 03867NV211)

RESULTS:

- No apparent bloodstains present.

32 Benelli Super Black Eagle 2 12GA shotgun (S/N: U391148) with strap and two (2) unfired shotshells headstamped "WINCHESTER 12 GA" and "12 GA FEDERAL"

RESULTS:

- No apparent bloodstains present.

33 Palmetto State Armory PSA PA-15 MULTI rifle (S/N: PA068237) with "Pulsar" night vision scope

RESULTS:

- No apparent bloodstains present.



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51 Swabs collected from lock/unlock buttons on driver's door (Chevy Suburban)

RESULTS:

- No human blood identified.

52 Swabs collected from driver's door arm rest (Chevy Suburban)

RESULTS:

- No human blood identified.

53 Swabs collected from driver's side running board below driver's door (Chevy Suburban)

RESULTS:

- No human blood identified.

54 Swabs collected from driver's floorboard (Chevy Suburban)

RESULTS:

- No human blood identified.

55 Swabs collected from front edge of driver's seat (Chevy Suburban)

RESULTS:

- No human blood identified.

56 Swabs collected from steering wheel (Chevy Suburban)

RESULTS:

- Blood identified.
- A DNA profile suitable for comparison was developed.
- Paul Murdaugh, Anthony Cook, Roger Davis, Rogan Gibson, Claude (C.B.) Rowe, Connor Cook, Phillip Beach, Renee Beach, Robin Beach, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), Randy Murdaugh, Miley Altman, and Morgan Doughty are excluded as contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.



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• **Proposition Set I:**

- The DNA profile was interpreted as a mixture originating from two individuals.
- Hp = Margaret Murdaugh and an unidentified unrelated individual contributed to the mixture.
- Hd = Two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 35 (3.5E1) times more likely if Margaret Murdaugh and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

• **Proposition Set II:**

- The DNA profile was interpreted as a mixture originating from two individuals.
- Hp = Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.
- Hd = Two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 100 quadrillion (1.0E17) times more likely if Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

• **Proposition Set III:**

- The DNA profile was interpreted as a mixture originating from two individuals.
- Hp = Margaret Murdaugh and Richard Alexander Murdaugh contributed to the mixture.
- Hd = Two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 240 quintillion (2.4E20) times more likely if Margaret Murdaugh and Richard Alexander Murdaugh contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.
- The LR for Proposition Set III was calculated to confirm that the mixture could be explained by the contribution of DNA from all individuals listed under Hp. Due to the disparity in the individual LR's between the contributors for this item, it is recommended to put more weight on the results of Proposition Set I rather than the results of Proposition Set III when considering Margaret Murdaugh as a possible contributor to the mixture.



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- 57 Swabs collected from center of driver's seat back (Chevy Suburban)
RESULTS:
• No human blood identified.
- 58 Swabs collected from front passenger door above arm rest (Chevy Suburban)
RESULTS:
• No human blood identified.
- 59 Swabs collected from front passenger seat bottom (Chevy Suburban)
RESULTS:
• No human blood identified.
- 60 Swabs collected from front passenger seat back (Chevy Suburban)
RESULTS:
• No human blood identified.
- 61 Swabs collected from driver's door above arm rest (Ford F250)
RESULTS:
• No human blood identified.
- 62 Swabs collected from door side corner of driver's seat bottom (Ford F250)
RESULTS:
• No human blood identified.
- 63 Swabs collected from door side edge of front passenger seat bottom (Ford F250)
RESULTS:
• No human blood identified.
- 64 Swabs collected from front passenger side seat back (Ford F250)
RESULTS:
• No human blood identified.



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70 Left fingernail clippings from Margaret Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- Paul Murdaugh, Anthony Cook, Roger Davis, Rogan Gibson, Connor Cook, Phillip Beach, Renee Beach, Robin Beach, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), Richard Alexander Murdaugh, Randy Murdaugh, Miley Altman, and Morgan Doughty are excluded as contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set:**
 - The DNA profile was interpreted as a mixture originating from two individuals.
 - Margaret Murdaugh is contributing to the mixture.
 - Hp = Margaret Murdaugh and Claude (C.B.) Rowe contributed to the mixture.
 - Hd = Margaret Murdaugh and an unidentified unrelated individual contributed to the mixture.
- The DNA profile is approximately 11 (1/9.0E-2) times more likely if Margaret Murdaugh and an unidentified unrelated individual contributed to the mixture than if Margaret Murdaugh and Claude (C.B.) Rowe contributed to the mixture.

71 Right fingernail clippings from Margaret Murdaugh

RESULTS:

- The DNA profile developed is attributable to Margaret Murdaugh.

72 Left fingernail clippings from Paul Murdaugh

RESULTS:

- The DNA profile developed is attributable to Paul Murdaugh.

73 Right fingernail clippings from Paul Murdaugh

RESULTS:

- The DNA profile developed is attributable to Paul Murdaugh.



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NOTES:

Serology and sample preparation performed by Forensic Serologist Rachel Nguyen.

DNA analysis was performed using Short Tandem Repeat (STR) PCR DNA analysis.

The following kits/loci were utilized in the analysis of this case:

GlobalFiler™: D3S1358, vWA, D16S539, CSF1PO, TPOX, Yindel, AMELOGENIN, D8S1179, D21S11, D18S51, DYS391, D2S441, D19S433, TH01, FGA, D22S1045, D5S818, D13S317, D7S820, SE33, D10S1248, D1S1656, D12S391, D2S1338

Any remaining evidence and/or packaging will be returned to the requesting agency.

The verbal scales listed in the tables below were implemented by SLED for use with STRmix™ results only. Verbal scales are designed to assist in conveying the weight of likelihood ratios.

Supported Proposition	Likelihood Ratio	Verbal Wording
First proposition (Hp) is supported against the alternative proposition (Hd)	1	Uninformative
	2 to 99	Weak support
	100 to 9,999	Moderate support
	10,000 to 999,999	Strong support
	≥ 1,000,000	Very strong support

Supported Proposition	Likelihood Ratio	Verbal Wording
The alternative proposition (Hd) is supported against the first proposition (Hp)	1	Uninformative
	2 to 99	Moderate support for Hd
	≥ 100	Exclusion

Reported likelihood ratios are based on the stated propositions. Alternate propositions may require calculation of additional likelihood ratios. If interpretation based on propositions other than those reported is needed, please contact the analyst listed below and allow up to **30 business days** for calculation and reporting of additional likelihood ratios.

Definitions:

Proposition: A statement, based on case circumstances and genetic results, that expresses an opinion

Hp: First proposition

Hd: Alternative proposition

Likelihood ratio: The comparison of the probabilities of Hp and Hd

Person of interest: An individual whose known standard has been submitted for comparison

This report contains the conclusions, opinions and interpretations of the analyst whose signature appears below.



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Technical records supporting the conclusions in this report are available upon request. Afford sufficient time for production.



Sarah Zapata

Forensic Scientist



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EXHIBIT C

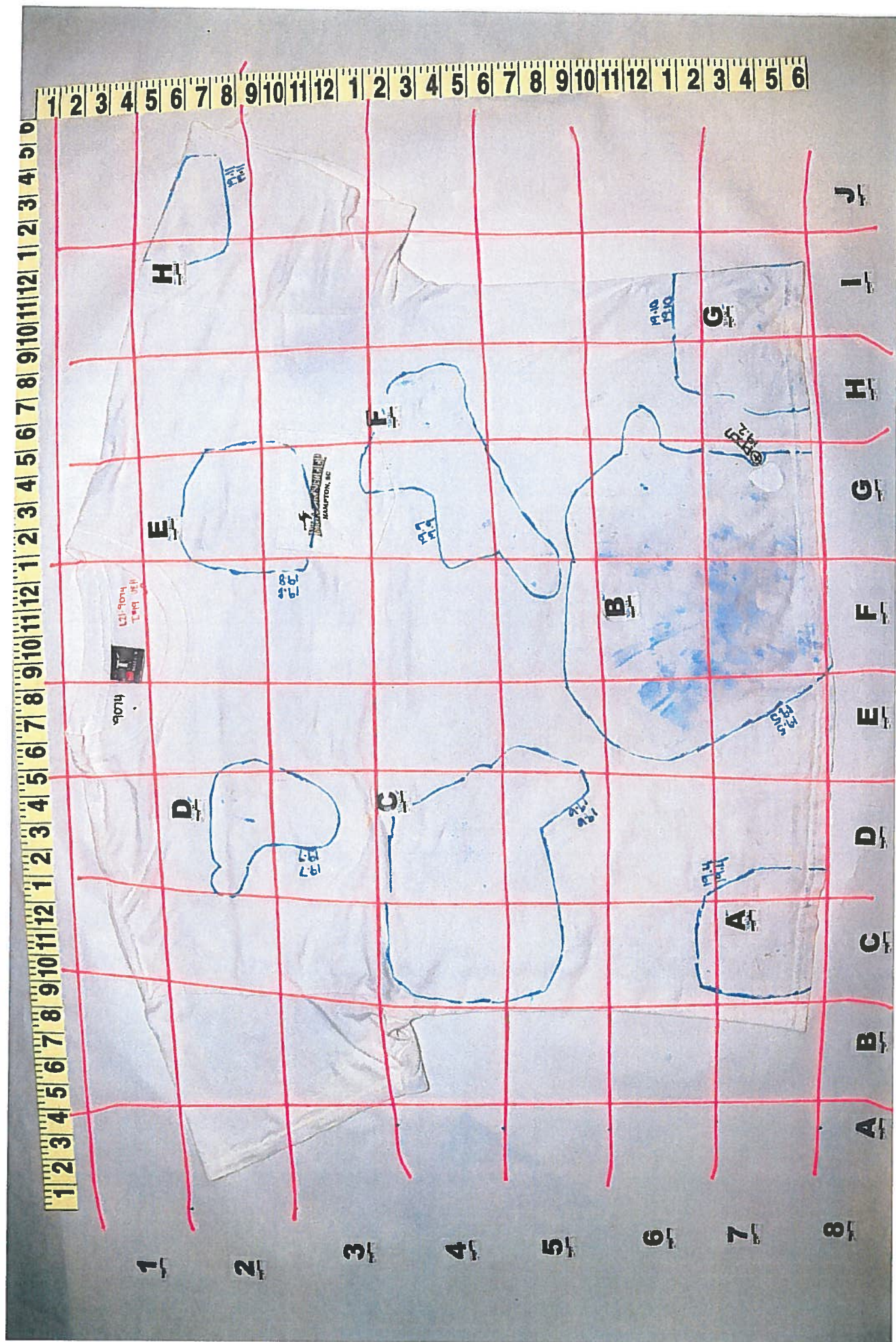
(Photo, white cotton T-shirt treated with
LCV)



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EXHIBIT D

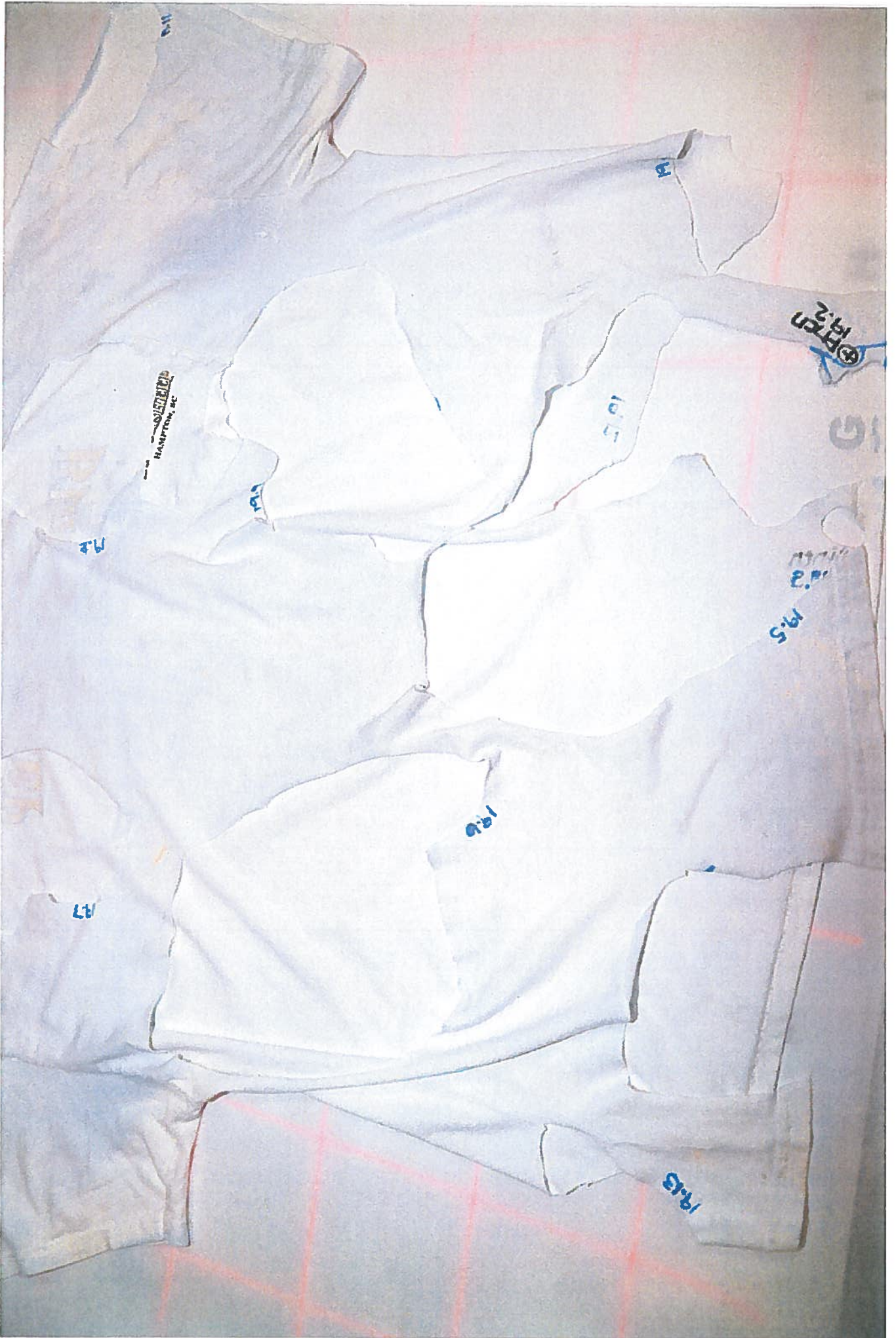
(Photo, white cotton T-shirt with areas of
interest identified and labeled)



State of South Carolina v. Richard Alexander Murdaugh
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EXHIBIT E

(Photo, white cotton T-shirt with cuttings)



State of South Carolina v. Richard Alexander Murdaugh
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Motion to Exclude False Testimony about Evidence Destroyed by the State

EXHIBIT F

(SLED DNA analysis report, July 25, 2021)

SOUTH CAROLINA LAW ENFORCEMENT DIVISION

FORENSIC SERVICES LABORATORY REPORT

HENRY D. MCMASTER
Governor



MARK A. KEEL
Chief

July 25, 2021

David Owen, III
South Carolina Law Enforcement Division
4400 Broad River Road
Columbia, SC 29210

DNA ANALYSIS

SLED LAB: L21-09074
Your Case No: 31210061
Incident Date: 6-7-2021
[V-Deceased] Paul Murdaugh
[V-Deceased] Margaret Murdaugh
[W] Richard Murdaugh

This is an official report of the South Carolina Law Enforcement Division Forensic Services Laboratory and is to be used in connection with an official criminal investigation. These examinations were conducted under your assurance that no previous examinations of person(s) or evidence submitted in this case have been or will be conducted by any other laboratory or agency.

Mark A. Keel, Chief
South Carolina Law Enforcement Division

SUPPLEMENTAL

COMPARISON STANDARDS

138 Buccal swabs from Nolen Tuten

RESULTS:

- The DNA profile developed is suitable for use as a known standard.

ITEMS OF EVIDENCE

19.3 Cutting from exterior, back, bottom center of white shirt from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- Paul Murdaugh, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), and Randy Murdaugh are excluded as contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.



P.O. Box 21398, Columbia, South Carolina 29221-1398 Phone (803) 896-7300 Fax (803) 896-7351

• **Proposition Set:**

- The DNA profile was interpreted as a mixture originating from two individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp – Richard Alexander Murdaugh and Margaret Murdaugh contributed to the mixture.
 - Hd – Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.
- The DNA profile is approximately 360 quadrillion (3.6E17) times more likely if Richard Alexander Murdaugh and Margaret Murdaugh contributed to the mixture than if Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.

19.4 Cutting from stain "A" on white shirt from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
 - Margaret Murdaugh, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), and Randy Murdaugh are excluded as contributors.
 - Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set I:**
- The DNA profile was interpreted as a mixture originating from two individuals.
 - Hp – Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.
 - Hd – Two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 120 quadrillion (1.2E17) times more likely if Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

• **Proposition Set II:**

- The DNA profile was interpreted as a mixture originating from two individuals.
- Richard Alexander Murdaugh is contributing to the mixture.
- Hp – Richard Alexander Murdaugh and Paul Murdaugh contributed to the mixture



- Hd Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.

- The DNA profile is approximately 7 octillion ($7.0E27$) times more likely if Richard Alexander Murdaugh and Paul Murdaugh contributed to the mixture than if Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.

19.5 Cutting from stain "B" on white shirt from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- Paul Murdaugh, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), and Randy Murdaugh are excluded as contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set:**
 - The DNA profile was interpreted as a mixture originating from two individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp Richard Alexander Murdaugh and Margaret Murdaugh contributed to the mixture.
 - Hd Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.
- The DNA profile is approximately 3,800 ($3.8E3$) times more likely if Richard Alexander Murdaugh and Margaret Murdaugh contributed to the mixture than if Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.

19.6 Cutting from stain "C" on white shirt from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- John Murdaugh and Randy Murdaugh are excluded as contributors.
- Due to the relatedness of the contributors, no conclusions will be offered regarding Paul Murdaugh and Richard Alexander Murdaugh, Jr. (Buster) as possible contributors to the mixture.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.



• **Proposition Set:**

- The DNA profile was interpreted as a mixture originating from three individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp = Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture.
 - Hd = Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 570 octillion ($5.7E29$) times more likely if Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture than if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.

19.7 Cutting from stain "D" on white shirt from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- John Murdaugh and Randy Murdaugh are excluded as contributors.
- Due to the relatedness of the contributors, no conclusions will be offered regarding Paul Murdaugh and Richard Alexander Murdaugh, Jr. (Buster) as possible contributors to the mixture.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set I:**

- The DNA profile was interpreted as a mixture originating from four individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp = Richard Alexander Murdaugh, Margaret Murdaugh, and two unidentified unrelated individuals contributed to the mixture.
 - Hd = Richard Alexander Murdaugh and three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 1.9 quadrillion ($1.9E15$) times more likely if Richard Alexander Murdaugh, Margaret Murdaugh, and two unidentified unrelated individuals contributed to the mixture than if Richard Alexander Murdaugh and three unidentified unrelated individuals contributed to the mixture.



• **Proposition Set II:**

- The DNA profile was interpreted as a mixture originating from four individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp = Richard Alexander Murdaugh, Nolen Tuten, and two unidentified unrelated individuals contributed to the mixture.
 - Hd = Richard Alexander Murdaugh and three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 48 septillion ($4.8E25$) times more likely if Richard Alexander Murdaugh, Nolen Tuten, and two unidentified unrelated individuals contributed to the mixture than if Richard Alexander Murdaugh and three unidentified unrelated individuals contributed to the mixture.

• **Proposition Set III:**

- The DNA profile was interpreted as a mixture originating from four individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp = Richard Alexander Murdaugh, Margaret Murdaugh, Nolen Tuten, and an unidentified unrelated individual contributed to the mixture.
 - Hd = Richard Alexander Murdaugh and three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 450 duodecillion ($4.5E41$) times more likely if Richard Alexander Murdaugh, Margaret Murdaugh, Nolen Tuten, and an unidentified unrelated individual contributed to the mixture than if Richard Alexander Murdaugh and three unidentified unrelated individuals contributed to the mixture.

19.8 Cutting from stain "E" on white shirt from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- Paul Murdaugh, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster) and Randy Murdaugh are excluded as contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.



• **Proposition Set:**

- The DNA profile was interpreted as a mixture originating from three individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp = Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture.
 - Hd = Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 590 million (5.9E8) times more likely if Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture than if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.

19.9 Cutting from stain "F" on white shirt from Richard Murdaugh

RESULTS:

- A DNA profile was developed.
- Due to the inability to determine the number of contributors, no further interpretation will be offered.

19.10 Cutting from stain "G" on white shirt from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster) and Randy Murdaugh are excluded as contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set 1:**

- The DNA profile was interpreted as a mixture originating from three individuals.
- Richard Alexander Murdaugh is contributing to the mixture.
- Hp = Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture.



- Hd - Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 430 octillion ($4.3E29$) times more likely if Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture than if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.

- **Proposition Set II:**

- The DNA profile was interpreted as a mixture originating from three individuals.

- Richard Alexander Murdaugh is contributing to the mixture.

- Hp - Richard Alexander Murdaugh, Paul Murdaugh, and an unidentified unrelated individual contributed to the mixture.

- Hd - Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.

- Paul Murdaugh is excluded as a contributor to the mixture under the listed propositions.

19.11 Cutting from stain "H" on white shirt from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.

- Paul Murdaugh, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), and Randy Murdaugh are excluded as contributors.

- Likelihood Ratios (LR) for this profile were calculated using STRmix™.

- **Proposition Set:**

- The DNA profile was interpreted as a mixture originating from two individuals

- Richard Alexander Murdaugh is contributing to the mixture.

- Hp - Richard Alexander Murdaugh and Margaret Murdaugh contributed to the mixture.

- Hd - Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.

- An uninformative statistical result was obtained. No conclusion can be made regarding Margaret Murdaugh as a possible contributor to the mixture under the listed propositions.



19.12 Cutting from stain "I" on white shirt from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- Paul Murdaugh, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), and Randy Murdaugh are excluded as contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set:**
 - The DNA profile was interpreted as a mixture originating from two individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp - Richard Alexander Murdaugh and Margaret Murdaugh contributed to the mixture.
 - Hd - Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.
- The DNA profile is approximately 1.3 nonillion (1.3E30) times more likely if Richard Alexander Murdaugh and Margaret Murdaugh contributed to the mixture than if Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.

19.13 Cutting from stain "J" on white shirt from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster) and Randy Murdaugh are excluded as contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set I:**
 - The DNA profile was interpreted as a mixture originating from three individuals.
 - Hp - Margaret Murdaugh and two unidentified unrelated individuals contributed to the mixture.
 - Hd - Three unidentified unrelated individuals contributed to the mixture.



- The DNA profile is approximately 1.5 sextillion ($1.5E21$) times more likely if Margaret Murdaugh and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.

• **Proposition Set II:**

- The DNA profile was interpreted as a mixture originating from three individuals.
- Hp Paul Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- Hd Three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 24 quintillion ($2.4E19$) times more likely if Paul Murdaugh and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.

• **Proposition Set III:**

- The DNA profile was interpreted as a mixture originating from three individuals.
- Hp Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- Hd Three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 29 ($2.9E1$) times more likely if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.

• **Proposition Set IV:**

- The DNA profile was interpreted as a mixture originating from three individuals.
- Hp Margaret Murdaugh, Paul Murdaugh, and Richard Alexander Murdaugh contributed to the mixture.
- Hd Three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 260 quindecillion ($2.6E50$) times more likely if Margaret Murdaugh, Paul Murdaugh, and Richard Alexander Murdaugh contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.
- The LR for Proposition Set IV was calculated to confirm that the mixture could be explained by the contribution of DNA from all individuals listed under Hp. Due to the disparity in the individual LRs between the contributors for this item, it is recommended to put more weight on the results of Proposition Set III rather than the results of Proposition Set IV when considering Richard Alexander Murdaugh as a possible contributor to the mixture.



20.3 Cutting from stain "A" on pair of green shorts from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- John Murdaugh and Randy Murdaugh are excluded as contributors.
- Due to the relatedness of the contributors, no conclusions will be offered regarding Paul Murdaugh and Richard Alexander Murdaugh, Jr. (Buster) as possible contributors to the mixture.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set:**
 - The DNA profile was interpreted as a mixture originating from three individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp – Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture.
 - Hd – Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 94 septillion (9.4E25) times more likely if Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture than if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.

20.4 Cutting from stain "G" on pair of green shorts from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- John Murdaugh and Randy Murdaugh are excluded as contributors.
- Due to the relatedness of the contributors, no conclusions will be offered regarding Paul Murdaugh and Richard Alexander Murdaugh, Jr. (Buster) as possible contributors to the mixture.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.



• **Proposition Set:**

- The DNA profile was interpreted as a mixture originating from three individuals.
- Richard Alexander Murdaugh is contributing to the mixture.
- Hp = Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture.
- Hd = Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 24 sextillion ($2.4E22$) times more likely if Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture than if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.

20.5 Cutting from stain "C" on pair of green shorts from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- Margaret Murdaugh, John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), and Randy Murdaugh are excluded as contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set:**
 - The DNA profile was interpreted as a mixture originating from two individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp = Richard Alexander Murdaugh and Paul Murdaugh contributed to the mixture.
 - Hd = Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.
- The DNA profile is approximately 4.1 septillion ($4.1E24$) times more likely if Richard Alexander Murdaugh and Paul Murdaugh contributed to the mixture than if Richard Alexander Murdaugh and an unidentified unrelated individual contributed to the mixture.



20.6 Cutting from stain "D" on pair of green shorts from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- John Murdaugh, Richard Alexander Murdaugh, Jr. (Buster) and Randy Murdaugh are excluded as contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set I:**
 - The DNA profile was interpreted as a mixture originating from three individuals.
 - Hp Margaret Murdaugh and two unidentified unrelated individuals contributed to the mixture.
 - Hd Three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 930 quintillion (9.3E20) times more likely if Margaret Murdaugh and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.
- **Proposition Set II:**
 - The DNA profile was interpreted as a mixture originating from three individuals.
 - Hp Paul Murdaugh and two unidentified unrelated individuals contributed to the mixture.
 - Hd Three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 38 quintillion (3.8E19) times more likely if Paul Murdaugh and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.
- **Proposition Set III:**
 - The DNA profile was interpreted as a mixture originating from three individuals.
 - Hp Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
 - Hd Three unidentified unrelated individuals contributed to the mixture.



- The DNA profile is approximately 190 (1.9E2) times more likely if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.

• **Proposition Set IV:**

- The DNA profile was interpreted as a mixture originating from three individuals.
- Hp - Margaret Murdaugh, Paul Murdaugh, and Richard Alexander Murdaugh contributed to the mixture.
- Hd - Three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 8.7 quidecillion (8.7E48) times more likely if Margaret Murdaugh, Paul Murdaugh, and Richard Alexander Murdaugh contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.
- The LR for Proposition Set IV was calculated to confirm that the mixture could be explained by the contribution of DNA from all individuals listed under Hp. Due to the disparity in the individual LRs between the contributors for this item, it is recommended to put more weight on the results of Proposition Set III rather than the results of Proposition Set IV when considering Richard Alexander Murdaugh as a possible contributor to the mixture.

20.7 Cutting from stain "E" on pair of green shorts from Richard Murdaugh

RESULTS:

- A DNA profile was developed.
- Due to the inability to determine the number of contributors, no further interpretation will be offered.

20.8 Cutting from stain "F" on pair of green shorts from Richard Murdaugh

RESULTS:

- A DNA profile suitable for comparison was developed.
- John Murdaugh and Randy Murdaugh are excluded as contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set I:**
 - The DNA profile was interpreted as a mixture originating from three individuals.



- Hp Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- Hd Three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 320 million ($3.2E8$) times more likely if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.
- **Proposition Set II:**
 - The DNA profile was interpreted as a mixture originating from three individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture.
 - Hd Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
 - The DNA profile is approximately 2.6 sextillion ($2.6E21$) times more likely if Richard Alexander Murdaugh, Margaret Murdaugh, and an unidentified unrelated individual contributed to the mixture than if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- **Proposition Set III:**
 - The DNA profile was interpreted as a mixture originating from three individuals.
 - Richard Alexander Murdaugh is contributing to the mixture.
 - Hp Richard Alexander Murdaugh, Paul Murdaugh, and an unidentified unrelated individual contributed to the mixture.
 - Hd Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
 - The DNA profile is approximately 17 quintillion ($1.7E19$) times more likely if Richard Alexander Murdaugh, Paul Murdaugh, and an unidentified unrelated individual contributed to the mixture than if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.



• **Proposition Set IV:**

- The DNA profile was interpreted as a mixture originating from three individuals.
- Richard Alexander Murdaugh is contributing to the mixture.
- Hp = Richard Alexander Murdaugh, Margaret Murdaugh, and Paul Murdaugh contributed to the mixture.
- Hd = Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 93 quattuordecillion ($9.3E46$) times more likely if Richard Alexander Murdaugh, Margaret Murdaugh, and Paul Murdaugh contributed to the mixture than if Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.

• **Proposition Set V:**

- The DNA profile was interpreted as a mixture originating from three individuals.
- Richard Alexander Murdaugh is contributing to the mixture.
- Hp = Richard Alexander Murdaugh, Richard Alexander Murdaugh, Jr. (Buster), and an unidentified unrelated individual contributed to the mixture.
- Hd = Richard Alexander Murdaugh and two unidentified unrelated individuals contributed to the mixture.
- Richard Alexander Murdaugh, Jr. (Buster) is excluded as a contributor to the mixture under the listed propositions.

20.9 Cutting from stain "H" on pair of green shorts from Richard Murdaugh

RESULTS:

- A partial DNA profile was developed.
- Due to the inability to determine the number of contributors, no further interpretation will be offered.



NOTES:

Sample preparation for DNA performed by Forensic Serologist Rachel Nguyen

DNA analysis was performed using Short Tandem Repeat (STR) PCR DNA analysis.

The following kits loci were utilized in the analysis of this case:

GlobalFiler™: D3S1358, vWA, D16S539, CSF1PO, TPOX, Yindel, AMELOGENIN, D8S1179, D21S11, D18S51, DYS391, D2S441, D19S433, TH01, FGA, D22S1045, D5S818, D13S317, D7S820, SE33, D10S1248, D1S1656, D12S391, D2S1338

No comparisons were performed with the following individuals at this time: Anthony Cook, Roger Davis, Rogan Gibson, Claude (C.B.) Rowe, Connor Cook, Phillip Beach, Renee Beach, Robin Beach, Miley Altman, Morgan Doughty, and Michael List.

Comparisons were only performed with Nolen Tuten for item 19.7

This report supplements the original testing performed in the report issued on June 25, 2021.

Any remaining evidence and/or packaging will be returned to the requesting agency.

The verbal scales listed in the tables below were implemented by SLED for use with STRmix™ results only. Verbal scales are designed to assist in conveying the weight of likelihood ratios.

Supported Proposition	Likelihood Ratio	Verbal Wording
First proposition (Hp) is supported against the alternative proposition (Hd)	1	Uninformative
	2 to 99	Weak support
	100 to 9,999	Moderate support
	10,000 to 999,999	Strong support
	> 1,000,000	Very strong support

Supported Proposition	Likelihood Ratio	Verbal Wording
The alternative proposition (Hd) is supported against the first proposition (Hp)	1	Uninformative
	2 to 99	Moderate support for Hd
	≥ 100	Exclusion

Reported likelihood ratios are based on the stated propositions. Alternate propositions may require calculation of additional likelihood ratios. If interpretation based on propositions other than those reported is needed, please contact the analyst listed below and allow up to **30 business days** for calculation and reporting of additional likelihood ratios.



Definitions:

Proposition: A statement, based on case circumstances and genetic results, that expresses an opinion

Hp: First proposition

Hd: Alternative proposition

Likelihood ratio: The comparison of the probabilities of Hp and Hd

Person of interest: An individual whose known standard has been submitted for comparison

This report contains the conclusions, opinions and interpretations of the analyst whose signature appears below.

Technical records supporting the conclusions in this report are available upon request. Afford sufficient time for production.



Sarah Zapata

Forensic Scientist



State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion to Exclude False Testimony about Evidence Destroyed by the State

EXHIBIT G

(HemaTrace test results, August 10, 2021)



Department of Forensic
DNA Analysis
Evidence Worksheet



Lab #: L21-09074
Examiner: Sarah Zapata
Date: 08/10/2021
Paul Murdaugh (Victim)
Margaret Murdaugh (Victim)

Case Number(s): L21-09074

Operator(s): Sarah Zapata

Item #	Description	AP	Phe	p30	HS	Saliva	Other	Sample Remaining	Comments
19.2	Cutting from exterior front, bottom edge of white shirt from Richard Murdaugh				=			Yes	Cut small portions of stain
19.3	Cutting from exterior, back, bottom center of white shirt from Richard Murdaugh				=			Yes	Cut small portions of stain
19.4	Cutting from stain "A" on white shirt from Richard Murdaugh				=			Yes	Cut small portions of stain
19.5	Cutting from stain "B" on white shirt from Richard Murdaugh				=			Yes	Cut small portions of stain
19.6	Cutting from stain "C" on white shirt from Richard Murdaugh				=			Yes	Cut small portions of stain
19.7	Cutting from stain "D" on white shirt from Richard Murdaugh				=			Yes	Cut small portions of stain
19.8	Cutting from stain "E" on white shirt from Richard Murdaugh				=			Yes	Cut small portions of stain
19.9	Cutting from stain "F" on white shirt from Richard Murdaugh				=			Yes	Cut small portions of stain
19.10	Cutting from stain "G" on white shirt from Richard Murdaugh				=			Yes	Cut small portions of stain
19.11	Cutting from stain "H" on white shirt from Richard Murdaugh				=			Yes	Cut small portions of stain
19.12	Cutting from stain "I" on white shirt from Richard Murdaugh				=			Yes	Cut small portions of stain
19.13	Cutting from stain "J" on white shirt from Richard Murdaugh				=			Yes	Cut small portions of stain

Page 1 of 3

Worklist ID : 42453

Issuing Authority: Quality Manager

SLED Forensics Form # DNA 002, December 2016

S11 S12

S1Z



Department of Forensic
DNA Analysis
Evidence Worksheet



Lab #: L21-09074
Examiner: Sarah Zapata
Date: 08/10/2021

Case Number(s): L21-09074

Operator(s): Sarah Zapata

Item #	Description	AP	Phe	p30	HS	Saliva	Other	Sample Remaining	Comments
20.2	Cutting from front, left interior pocket of pair of green shorts from Richard Murdaugh								NAP
20.3	Cutting from stain "A" on pair of green shorts from Richard Murdaugh								NAP
20.4	Cutting from stain "G" on pair of green shorts from Richard Murdaugh								NAP
20.5	Cutting from stain "C" on pair of green shorts from Richard Murdaugh								NAP
20.6	Cutting from stain "D" on pair of green shorts from Richard Murdaugh								NAP
20.7	Cutting from stain "E" on pair of green shorts from Richard Murdaugh								NAP
20.8	Cutting from stain "F" on pair of green shorts from Richard Murdaugh								NAP
20.9	Cutting from stain "H" on pair of green shorts from Richard Murdaugh								NAP

SIZ

212512



Department of Forensic
DNA Analysis
Evidence Worksheet



Lab #: L21-09074
Examiner: Sarah Zapata
Date: 08/10/2021

Case Number(s): L21-09074

Operator(s): Sarah Zapata

Reagent	Barcode
Ethanol	N/A
Phenolphthalin	N/A
3% H2O2	N/A
AP Spot	N/A
Kernechtrot	N/A
Picroindigocarmine	N/A
Water	N/A
Water	N/A
Water	N/A
Water	N/A

Quality Control	Date
Phenolphthalin QC	
AP Spot QC	

Workspace decontaminated prior to analysis

SIZ

Comments: Photodocumentation by L.A. Hash and Maryann Boehm

SIZ



Department of Forensic
DNA Analysis
Blood/Semen/Saliva Card Result Sheet



Date: 08/10/2021
Examiner: Sarah Zapata
Reviewer: *[Signature]*

Case Number(s): L21-09074

Operator(s): Sarah Zapata

	Case #	Item #	Blood	p30	Saliva	Comments
1	L21-09074	19.2	=	N/A	N/A	
2	L21-09074	19.3	=	N/A	N/A	
3	L21-09074	19.4	=	N/A	N/A	
4	L21-09074	19.5	=	N/A	N/A	
5	L21-09074	19.6	=	N/A	N/A	
6	L21-09074	19.7	=	N/A	N/A	
7	L21-09074	19.8	=	N/A	N/A	
8	L21-09074	19.9	=	N/A	N/A	
9	L21-09074	19.10	=	N/A	N/A	
10	L21-09074	19.11	=	N/A	N/A	
11	L21-09074	19.12	=	N/A	N/A	
12	L21-09074	19.13	=	N/A	N/A	

Reagent	Barcode
ABACard: (blood)	17809
SERATEC: (semen)	N/A
RSID: (saliva)	N/A

Comments: Hematrace 17809 used for samples 19.3-19.8

Hematrace 17989 exp. 12/31/22 used for samples 19.2 and 19.9-19.13

19.9
SIZ
11/01/21

SIZ

334 SIZ

State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion to Exclude False Testimony about Evidence Destroyed by the State

EXHIBIT H

(SLED DNA analysis report, November 10,
2021)

SOUTH CAROLINA LAW ENFORCEMENT DIVISION

FORENSIC SERVICES LABORATORY REPORT

HENRY D. MCMASTER
Governor



MARK A. KEEL
Chief

November 10, 2021

David Owen, III
South Carolina Law Enforcement Division
4400 Broad River Road
Columbia, SC 29210

DNA ANALYSIS

SLED LAB: L21-09074
Your Case No: 31210061
Incident Date: 6 7 2021
[V Deceased] Paul Murdaugh
[V-Deceased] Margaret Murdaugh
[W] Richard Murdaugh

This is an official report of the South Carolina Law Enforcement Division Forensic Services Laboratory and is to be used in connection with an official criminal investigation. These examinations were conducted under your assurance that no previous examinations of person(s) or evidence submitted in this case have been or will be conducted by any other laboratory or agency.

Mark A. Keel, Chief
South Carolina Law Enforcement Division

SUPPLEMENTAL

COMPARISON STANDARDS

143 Buccal swabs collected from Colleton CSO Deputy Daniel Greene

RESULTS:

- This item is being returned to the submitting agency without analysis and has not been inventoried.



P.O. Box 21398, Columbia, South Carolina 29221-1398 Phone (803) 896-7300 Fax (803) 896-7351

ITEMS OF EVIDENCE

- 19.2 Cutting from exterior front, bottom edge of white shirt from Richard Murdaugh
- 19.3 Cutting from exterior, back, bottom center of white shirt from Richard Murdaugh
- 19.4 Cutting from stain "A" on white shirt from Richard Murdaugh
- 19.5 Cutting from stain "B" on white shirt from Richard Murdaugh
- 19.6 Cutting from stain "C" on white shirt from Richard Murdaugh
- 19.7 Cutting from stain "D" on white shirt from Richard Murdaugh
- 19.8 Cutting from stain "E" on white shirt from Richard Murdaugh
- 19.9 Cutting from stain "F" on white shirt from Richard Murdaugh
- 19.10 Cutting from stain "G" on white shirt from Richard Murdaugh
- 19.11 Cutting from stain "H" on white shirt from Richard Murdaugh
- 19.12 Cutting from stain "I" on white shirt from Richard Murdaugh
- 19.13 Cutting from stain "J" on white shirt from Richard Murdaugh

ADDITIONAL RESULTS FOR ITEMS 19.2, 19.3, 19.4, 19.5, 19.6, 19.7, 19.8, 19.9, 19.10, 19.11, 19.12, AND 19.13:

- No human blood identified.

- 173 Blue raincoat from second floor hall closet

RESULTS:

- Presumptive testing for blood was negative.
- No hair found.

- 173.2 Swabs from interior cuffs, collar, and hood, interior and exterior zipper area, zipper, and zipper pull of blue raincoat from second floor hall closet

RESULTS:

- No DNA profile was developed.

- 173.3 Swabs from side openings, zipper area, and both interior portions of exterior pocket of blue raincoat from second floor hall closet

RESULTS:

- A partial DNA profile was developed.
- Due to the limited information obtained and the inability to determine the number of contributors, no further interpretation will be offered.



NOTES:

Serology for item 173 and sample preparation of items 173.2 and 173.3 were performed by Forensic Scientist Rachel Nguyen.

DNA analysis was performed using Short Tandem Repeat (STR) PCR DNA analysis.

The following kits/loci were utilized in the analysis of this case:

GlobalFiler™: D3S1358, vWA, D16S539, CSF1PO, TPOX, Yindel, AMELOGENIN, D8S1179, D21S11, D18S51, DYS391, D2S441, D19S433, TH01, FGA, D22S1045, D5S818, D13S317, D7S820, SE33, D10S1248, D1S1656, D12S391, D2S1338

This report supplements the testing performed in the reports issued on June 25, 2021, and July 25, 2021.

Any remaining evidence and/or packaging will be returned to the requesting agency.

This report contains the conclusions, opinions and interpretations of the analyst whose signature appears below.

Technical records supporting the conclusions in this report are available upon request. Afford sufficient time for production.



Sarah Zapata

Forensic Scientist



State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion to Exclude False Testimony about Evidence Destroyed by the State

EXHIBIT I

(State's expert DRAFT report, February 3,
2022)

Tom Bevel, President
Ross M. Gardner, Vice President

Partners:

Tom "Grif" Griffin
Craig Gravel
Jonathyn Priest



Associates:
Kim Duddy
Ken Martin
Cele Rossi

Thursday, February 3, 2022

David Owen, III
dowen@sled.sc.gov

Charles Ghent
cghent@sled.sc.gov

Ref: Homicide Investigation of Paul and Margaret Murdaugh
BGA Case 2022-01 SC

As requested by your office a physical evidence and scene analysis has been conducted on the above case.

Crime Scene Reconstruction is defined as the forensic science discipline, which employs the scientific method of analysis to identify the best explanation and sequence of objective actions for the incident in question. Information from all sources such as scene documentation, physical evidence, lab analysis, autopsy, photographs, and statements, are considered in identifying viable hypotheses that are possible within the context and limited universe of this crime scene. CSR provides for formal objective analysis versus subjective analysis of complex issues and in a holistic approach.

Should additional evidence or information become available, the analyst will consider its importance and may revise portions of the event analysis.

The physical evidence analysis is then used, as a benchmark, upon which any statements may be compared against.

Victims: Margaret Murdaugh
WF, [REDACTED]
DOD: 06-07-2021, DOB: [REDACTED]

Paul Murdaugh
WM [REDACTED]
DOD: 06-07-2021, DOB: [REDACTED]

Husband/Father to victim's: Alec Murdaugh
DOB: [REDACTED]

Location: 4147 Moselle Road Islandton, SC 29929
Near dog kennels on this property

Incident Date: June 07, 2021
page 1 of 10

Murdaugh

Brief Case Synopsis:

Alec Murdaugh stated that he drove to the dog kennel on his property and found his son and wife shot and non-response. Alex touched both victims in checking them for life signs. Alec stated he tried to roll Paul but could not. He called 911 to report the deaths and drove to his house to get a shotgun for protection and drove back to the scene to wait for first responders to arrive.

The following information was considered in this analysis:

First interview with Alex Murdaugh – 34:45 mins.
Crime Scene Investigation Summary – 46 pages
Autopsy Report for Paul Murdaugh – 6 pages
Autopsy Report for Margaret Murdaugh – 8 pages
DNA Report of June 25, 2021 – 18 pages
DNA Report of June 25, 2021 – 17 pages
Evidence processing EP – 449 photos
Evidence processing – 357 photos
Paul autopsy photos – 34 photos
Margaret autopsy photos – 38 photos
L21-09074 Lab photos of Shotgun – 30 photos
Firearms Report July 23, 2021, -10 pages
Mercedes GLS processing – 138 photos
Lab photos of victim's clothing – 200 photos
Evidence processing – 25 photos
Trace evidence report June 15, 2021 – 3 pages
Trace evidence report June 18, 2021 – 2 pages
Trace evidence report June 15, 2021 – 2 pages
Trace evidence report October 25, 2021 – 2 pages
David Greene body cam recording – 57 mins.
L21-09074 Photos of inside feed room – 304 photos

Evidence collected to include:

- 1 - shotshell was located on floor in the feed room
- 2 - 1 cartridge case S&B .300 AAC BLK, on gravel between overhang and kennels
- 3 - 1 cartridge S&B, on gravel between overhang and kennels
- 4 - 1 cartridge S&B, where gravel meets grass between overhang and kennels
- 5 - 1 cartridge S&B, on the dirt near the female's right side
- 6 - 1 cartridge S&B, on the dirt near the female's right side
- 8 - Tire impressions consistent with dog's caretaker's vehicle
- 12 - Brain matter in grass between gravel and female

Murdaugh page 3 of 10

- 13 - Possible bullet strike in gravel between the overhang and dog kennels with

metal fragments recovered
#18 GSR kit from Richard Murdaugh
#19 white t-shirt
#20 pair of green shorts
#21 pair of red/yellow/white Nike tennis shoes
#8 one fired bullet near tire impression in dirt
#9-10 two fired 12 GA shotshells
#12 one fired bullet from dog bedding
#13 One buckshot pellet from table storage room window
#22 Benelli Model Super Black Eagle 3, semiautomatic 12 GA with one unfired shotshell
Item 35-39 Five fired 300 Blackout cartridges from ground at side entrance door
48 birdshot pellets from left shoulder and head of Paul
One piece of plastic from shoulder and head of Paul
One combination wad from left axilla of Paul
Scene diagram (See PP #1)

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Data IQ-4:

1. Two (2) areas that are positive for blood using LCV (See PP #42-43)
2. No misting size blood spatter
3. Edges of stains appear diffuse

Opinion IQ-4: The stains on the white t-shirt are consistent with transfers and **not** back spatter from a bullet wound.

Murdaugh page 8 of 10

Murdaugh page 9 of 10

[illegible]

In this double shooting I would always look for back spatter on the weapons and the clothing of the shooter if the clothing worn at the time of the shooting is known and available, and if the weapons are known and available. For there to be little to no back spatter on the shooter or their clothing is certainly possible for this incident.

If you have any questions on this report, please contact me at the above listed contact numbers.

Respectfully,

Tom Bevel

Certified Crime Scene Reconstructionist (awaiting 2nd recertification test under development)

Technical review by Ken Martin

Attachment PP

State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion to Exclude False Testimony about Evidence Destroyed by the State

EXHIBIT J

(SLED case narrative)

SOUTH CAROLINA LAW ENFORCEMENT DIVISION



Narrative

SLED Lab # L21-09074

Date: 02/14/2022	Time: 11:39 am	Conv With:	Email:
Type: Case Event		Phone:	Ext:
Analyst: Sarah Zapata		Affiliations:	

Extracts dried and prepared for return.

Date: 02/15/2022	Time: 3:58 pm	Conv With: Lt. Charles Ghent (SLED Low Country Region)	Email:
Type: Case Event		Phone:	Ext:
Analyst: Lt. Kukila N. Wallace		Affiliations:	

Per a verbal conversation with Lt. Ghent on 02/08/22, Item 19 and it's sub-items have been requested by Tom Bevel of Bevel, Gardner and Associates for further examination for BPA. Item 19 was visually examined by me and Lt. Todd Schenk on 02/15/22 to determine the condition of the item post LCV processing. A photo of the shirt was provided to Lt. Ghent via cell phone. Lt. Ghent advised that he would follow-up with Mr. Bevel to determine how to proceed. KNW 02/15/22

Date: 04/11/2022	Time: 10:46 am	Conv With:	Email:
Type: Email		Phone:	Ext:
Analyst: Emily B. Reinhart, Captain		Affiliations:	

Notified via email on 4/10/22 by Lt. Charles Ghent that he would like to schedule a meeting with DNA staff to discuss lab results with Creighton Waters from the SCAG Office. Lt. Hash has confirmed that she, Sarah Zapata and Rachel Nguyen are available on Wednesday, April 20th. I notified Lt. Ghent. EBR

Date: 04/27/2022	Time: 10:08 am	Conv With:	Email:
Type: Document Request		Phone:	Ext:
Analyst: Lorri M. Johnson		Affiliations:	

D 2022-089; L21-09074

Today, I sent 8 DNA STRmix files to Assistant Deputy Attorney General Creighton Waters, at the request of Sarah Zapata.

LMJ
4/27/2022

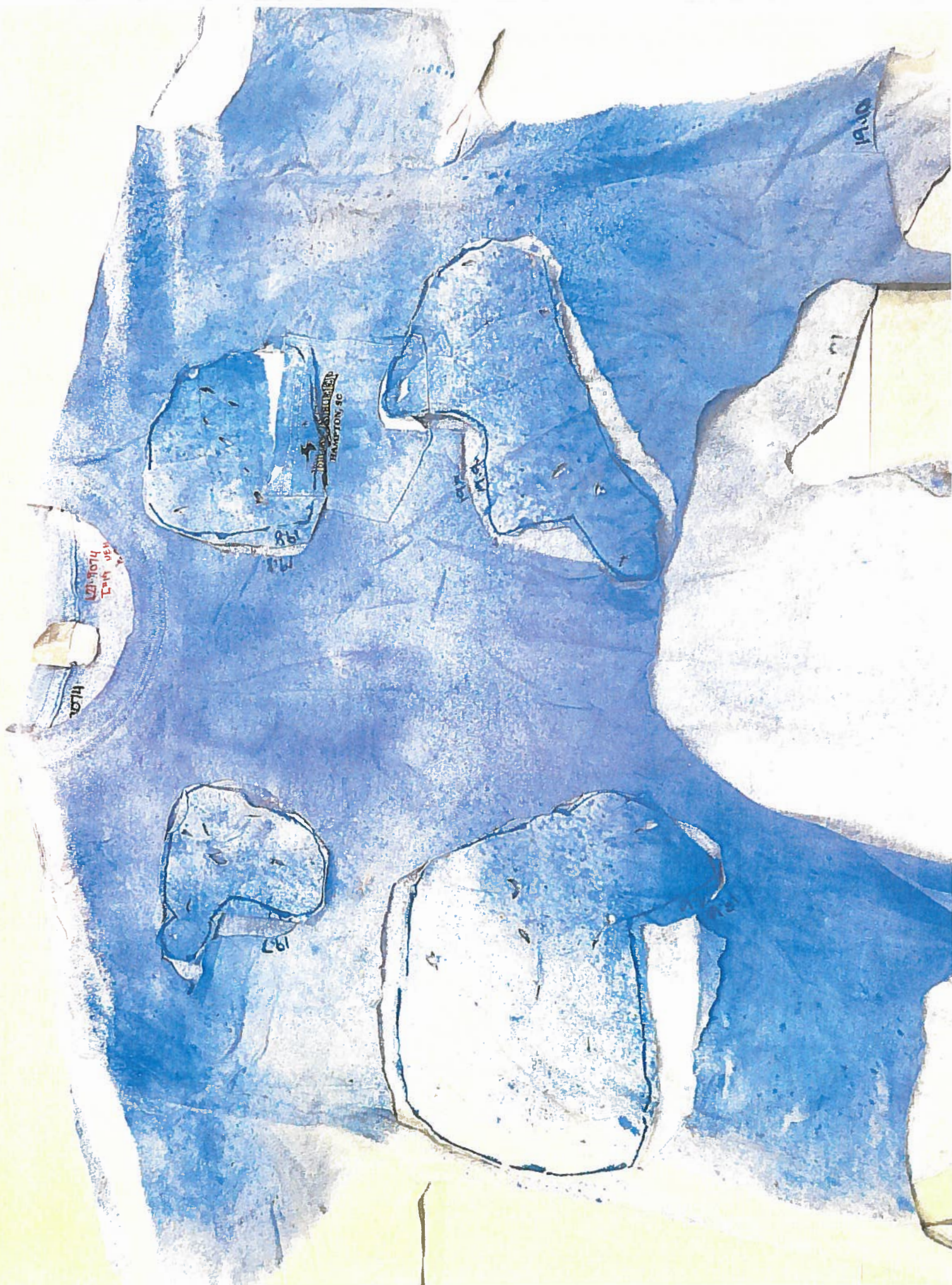
Date: 08/11/2022	Time: 2:07 pm	Conv With:	Email:
Type: Case Event		Phone:	Ext:
Analyst: Lt. Jeffrey A. Crooks		Affiliations:	

Lt. Crooks approved the wording for the Item 105.4 and 105.6 results that includes specific item information to clarify items being referred to.

State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion to Exclude False Testimony about Evidence Destroyed by the State

EXHIBIT K

(Photo, white cotton T-shirt completely
blue)



State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion to Exclude False Testimony about Evidence Destroyed by the State

EXHIBIT L

(State's expert report, March 29, 2022)

Tom Bevel, President
Ross M. Gardner, Vice President

Partners:
Tom "Grif" Griffin
Craig Gravel
Jonathyn Priest



Associates:
Kim Duddy
Ken Martin
Cele Rossi

Tuesday, March 29, 2022

David Owen, III
dowen@sled.sc.gov

Charles Ghent
cghent@sled.sc.gov

Ref: Homicide Investigation of Paul and Margaret Murdaugh
BGA Case 2022-01 SC

As requested by your office a physical evidence and scene analysis has been conducted on the above case.

Crime Scene Reconstruction (CSR) is defined as the forensic science discipline, which employs the scientific method of analysis to identify the best explanation and sequence of objective actions for the incident in question. Information from all sources such as scene documentation, physical evidence, lab analysis, autopsy, photographs, and statements, are considered in identifying viable hypotheses that are possible within the context and limited universe of this crime scene. CSR provides for formal objective analysis versus subjective analysis of complex issues and in a holistic approach.

Should additional evidence or information become available, the analyst will consider its importance and may revise portions of the event analysis.

The physical evidence analysis is then used, as a benchmark, upon which any statements may be compared against.

Victims: Margaret Murdaugh
WF, [REDACTED]
DOD: 06-07-2021, DOB: [REDACTED]

Paul Murdaugh
WM [REDACTED]
DOD: 06-07-2021, DOB: [REDACTED]

Husband/Father to victims: Richard Alexander Murdaugh
DOB: [REDACTED]

Location: 4147 Moselle Road Islandton, SC 29929
Near dog kennels on this property

Incident Date: June 07, 2021

Direct Mailing Address: Billing Address: 7601 Sunset Sail Ave. Edmond, OK 73034
Voice: 405-447-4469 • Email: bevelgardner@cox.net

Murdaugh page 2 of 12

Brief Case Synopsis:

Alex Murdaugh stated that he drove to the dog kennel on his property and found his son and wife shot and non-responsive. Alex touched both victims in checking them for life signs. Alex stated he tried to roll Paul but could not. He called 911 to report the deaths and drove to his house to get a shotgun for protection and drove back to the scene to wait for first responders to arrive.

The following information was considered in this analysis:

First interview with Alex Murdaugh – 34:45 mins.
Crime Scene Investigation Summary – 46 pages
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Mercedes GLS processing – 138 photos
Lab photos of victim's clothing – 200 photos
Evidence processing – 25 photos
Trace evidence report June 15, 2021 – 3 pages
Trace evidence report June 18, 2021 – 2 pages
Trace evidence report September 2021 – 2 pages
Trace evidence report October 25, 2021 – 2 pages
David Greene body cam recording – 57 mins.
L21-09074 Photos of inside feed room – 304 photos
View Alex t-shirt, shorts & cuttings at Norman, OK Police Lab 1501 W Lindsey 03-10-2022
Forensic mannequins with dowel rods placed corresponding to the autopsy for bullet paths were used for an understanding of possible body positions when deceased were shot

Evidence collected to include:

- 1 - shotshell wad located on floor in the feed room
- 2 - 1 cartridge case S&B .300 AAC BLK, on gravel between overhang and kennels
- 3 - 1 cartridge S&B, on gravel between overhang and kennels
- 4 - 1 cartridge S&B, where gravel meets grass between overhang and kennels
- 5 - 1 cartridge S&B, on the dirt near the female's right side
- 6 - 1 cartridge S&B, on the dirt near the female's right side

Murdaugh page 3 of 12

8 – Tire impressions consistent with dog's caretaker' vehicle
12 – Brain matter in grass between gravel and female
13 – Possible bullet strike in gravel between the overhang and dog kennels with
metal fragments recovered
#18 gunshot residue (GSR) kit from Richard Murdaugh
#19 white t-shirt
#20 pair of green shorts
#21 pair of red/yellow/white Nike tennis shoes
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#12 one fired bullet from dog bedding
#13 One buckshot pellet from table storage room window
#22 Benelli Model Super Black Eagle 3, semiautomatic 12 GA with one unfired shotshell
Item 35-39 Five (5) fired 300 Blackout cartridges from ground at side entrance door
48 birdshot pellets from left shoulder and head of Paul
One piece of plastic from shoulder and head of Paul
One combination wad from left axilla of Paul
Scene diagram (See PP #1)

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Murdaugh page 4 of 12

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IQ-4: Are the bloodstains on Alex's white t-shirt consistent with back spatter from a gunshot?

Data IQ-4:

1. Eight (8) areas that are positive for blood using LCV on front of t-shirt (See PP #30-32)
2. Approximately 40+ misting size blood spatter
3. Edges of stains appear slightly diffuse from the application LCV and or body sweat

Opinion IQ-4: Some of the stains on the white t-shirt are consistent with transfers and 100+ stains are consistent with spatter on the front of the t-shirt (See PP #30-32)

IQ-5: Are the 100+ spatter stains on the front of t-shirt the result of using the t-shirt to wipe the face?

Data IQ-5:

1. In the Greene bodycam the front bottom of the t-shirt is observed to be pulled up over the face to wipe the face (See PP #33)
2. The front bottom of the t-shirt has transfer type blood staining consistent with wiping a sweaty face that has blood on the face, but spatter stains do not contact the face as the spatter stains areas folds over in contact with the t-shirt below the face
3. If the spatter areas did contact the face the transfer of blood onto the t-shirt would look very similar to the transfer on the front bottom of the shirt and they do not
4. If the t-shirt is raised high enough for the spatter stain areas to contact the face, then the front bottom edge of the t-shirt will not have transfer blood on it, and it is the only area with transfers in a large enough area to be consistent with wiping the face

Opinion IQ-5: The 100+ spatter stains on the front of the t-shirt are **not** from wiping the face with the t-shirt.

IQ-6: What type of blood staining would be expected to be on the face from checking two deceased bodies for a pulse or trying to roll one body over to its back but failing to do so?

Data IQ-6:

1. As neither person is alive, and no CPR is attempted there will be no expectorate blood forced out of the mouth, nose or wounds
2. In attempting to roll Paul's body over and letting go the blood on the cement or gravel when the body falls into any blood accumulated on the cement or gravel the impact will produce spinning type stains on the cement and none on the gravel and if any spatter stains occurred, they will be directed to the shoes, legs or shorts if kneeling and won't rise high enough to cover the front of the t-shirt

In handling the bodies, the hands may get blood on them and would create transfer patterns if still wet
blood onto anything they touch, but this will not create spatter stains

Opinion IQ-6: The only blood patterns expected from handling the bodies would create transfer patterns.

[illegible]

IQ-8: How does environmental factors and physical manipulation of the shirt effect the stains observed?

Data IQ-8:

1. Once bloodstains are dry and set, they will remain the same geometric shape
2. If bloodstains get very sufficiently wet from water such as being immersed in a sink or soaked by rain, or from body sweat the stains, which have not dried and set (Approximately 12-18 hours) the stains may appear diffused along the outside edges depending on how much moisture is present
3. Physical manipulation of the shirt after the stains are dry and set will have little to no effect on the shape of the stains

[illegible]

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Murdaugh page 11 of 12

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Murdaugh page 12 of 12

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***IQ-9: Above** The t-shirt has been evaluated by six (6) recognized Bloodstain Pattern experts all agreeing the best explanation for the stains on the shirt are spatter from approximately the bottom third up to the top of the shirt and transfers on the bottom third down to the hem of the t-shirt. All agree they cannot identify some other mechanism to create the distribution and sizes of the questioned stain spatter.

If you have any questions on this report, please contact me at the above listed contact numbers.

Respectfully,

Tom Bevel

Certified Crime Scene Reconstructionist (awaiting 2nd recertification test under development)

Technical review by Ken Martin

Attachment PP

NOV 23 2022 PM12:03
COLLETON CO GS, REBECCA H. HILL

STATE OF SOUTH CAROLINA
COUNTY OF COLLETON

) IN THE COURT OF GENERAL SESSIONS
) FOURTEENTH JUDICIAL CIRCUIT
)

The State of South Carolina,

Plaintiffs,

vs.

Richard Alexander Murdaugh,

Defendant.

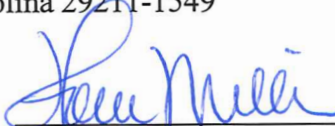
Indictment Nos. 2022GS1500592 – 00595

CERTIFICATE OF SERVICE

I, Holli Miller, paralegal to the attorney for the Defendant, Richard A. Harpootlian, P.A., with offices located at 1410 Laurel Street, Columbia, South Carolina 29201, hereby certify that on November 23, 2022, I did serve by placing in the U.S. mail, first class postage affixed thereto (with a courtesy copy sent electronically), the following documents to the below mentioned person:

Document: Motion to Exclude Testimony About Evidence Destroyed by the State

Served: Creighton Waters, Esquire
Office of The Attorney General
Rembert C. Dennis Building
Post Office Box 11549
Columbia South Carolina 29211-1549
cwaters@scag.gov


Holli Miller