

STATE OF SOUTH CAROLINA
COUNTY OF COLLETON

IN THE COURT OF GENERAL SESSIONS
FOURTEENTH JUDICIAL CIRCUIT

The State of South Carolina,

vs.

Richard Alexander "Alex" Murdaugh,
Defendant.

Indictment Nos. 2022-GS-15-00592
2022-GS-15-00593
2022-GS-15-00594
2022-GD-15-00595

**MOTION IN LIMINE TO EXCLUDE
BLOOD SPATTER TESTIMONY OF
DEPUTY KENNETH LEE KINSEY**

Richard Alexander Murdaugh ("Murdaugh"), by and through undersigned counsel, moves the Court to preclude the State from offering any testimony of Deputy Kenneth Lee Kinsey regarding blood spatter on a white T-shirt Murdaugh was wearing the night his wife and son were murdered, because Deputy Kinsey states that "[a]fter consideration of [Tom Bevel's] opinion, analysis reports, and follow-up experimentation [by Tom Bevel], this expert cannot render an opinion on" whether "the blood stains on Alex's white t-shirt [are] consistent with back spatter from a gunshot." Without an opinion on whether the stains are "blood stains" or whether the stains are "consistent with back spatter from a gunshot," any expert opinion testimony he would offer regarding the stains would not assist the trier of fact; and therefore, such expert opinion should be excluded because it will unfairly confuse and mislead the jury. *See* Rules 403 & 702, SCRE; *see State v. Council*, 335 S.C. 1, 20, 515 S.E.2d 508, 518 (1999). This is especially true because SLED's HemaTrace testing results confirmed the stains *are not* human blood. Accordingly, Deputy Kinsey's testimony should be precluded because it is not relevant, fails to assist the trier of fact, and will only result in confusion of the pertinent issues being presented to the jury.

FACTS & PROCEDURAL HISTORY

On the night of the murders of Maggie and Paul Murdaugh, SLED collected the white cotton T-shirt Mr. Murdaugh was wearing when he discovered Maggie and Paul's bloody bodies. The murder scene was gruesome; there was a large amount of blood on and around their bodies which transferred onto Mr. Murdaugh's hands and clothing when he frantically checked them for signs of life. As part of its examination of the T-shirt, SLED tested cuttings taken from the front, upper two-thirds of the t-shirt (which the State claims are spatter) for the presence of DNA (ex: skin cells, tissue, organs, muscle, brain cells, bone, teeth, hair, saliva, mucus, perspiration, fingernails, etc.). The DNA test is highly sensitive and can detect "trace" DNA amounts as low as one nanogram or less, which can be transferred between persons through casual touch or even merely by being in close proximity. The cuttings generally tested positive for Maggie's DNA with Paul either excluded or not considered because of his relatedness to the other contributors. None tested positive for Paul's DNA. Two weeks later, the cuttings were then tested by SLED for hemoglobin – a test specifically tailored to identify the presence of human blood. *Every cutting tested negative for human blood.* Given that the stains are not human blood, there is no reason to believe the positive DNA tests are related to the stains at all.

Despite these test results, the State's expert Mr. Bevel inexplicably continues to maintain the stains contained in the cuttings from the upper two-thirds of the t-shirt are blood spatter. See Expert Report and Suppl. Report (attempting to disprove the HemaTrace testing conducted by a scientist in SLED'S state-of-the-art forensic laboratory with results he obtained from testing performed by himself, at home, and which contradicts multiple peer-reviewed, published academic articles), attached hereto as **Exhibits A & B**, respectively. Anticipating a challenge to the admissibility of Mr. Bevel's blood spatter opinion, the State provided the defense with Deputy

Kenneth Lee Kinsey's expert report on January 13, 2022 – approximately one week before trial. The report, which was issued January 9, 2023 (just weeks after the defense pointed out the glaring deficiencies in the State and Bevel's compliance with the requisite Rule 5 disclosures), expressly relies on – and essentially parrots – Mr. Bevel's report. *See* Kinsey Report, attached hereto as **Exhibit C.**¹

Deputy Kinsey's report is organized around the same 12 “investigative questions” Mr. Bevel used in his report and essentially paraphrases Mr. Bevel's opinions on those questions with one notable exception regarding blood spatter. In response to “IQ-4: Are the blood stains on Alex's white t-shirt consistent with back spatter from a gunshot,” Deputy Kinsey repeats Mr. Bevel's phrase about “100 plus” stains, then opines, “the smaller stains that are present after treatment with LCV appear to be high velocity impact stains . . . only caused by a gunshot or high speed machinery.” He then pivots 180-degrees to conclude: “*After consideration of the original opinion, analysis reports, and follow-up experimentation, this expert cannot render an opinion on IQ-4 above.*” *Id.* at 6.

¹ To the extent Deputy Kinsey might say his report is an independent review of evidence independent of Mr. Bevel's report, no required disclosures have been made. Mr. Murdaugh made a Rule 5 request on July 15, 2022, which requires the State to produce to Mr. Murdaugh all “books, papers, documents, photographs, tangible objects, buildings or places, or copies or portions thereof, which are within the possession, custody or control of the prosecution, and which are material to the preparation of his defense.” Rule 5(a)(1)(C), SCRCrimP. The State has produced no draft reports, communications, notes, or analyses by, to, or regarding Deputy Kinsey. Deputy Kinsey's report was even produced as a scan of printed hard copy so it would not even have metadata. Not one email to or from Deputy Kinsey has been produced. Such documents are encompassed by the Rule 5 request, and the State's failure to comply with Rule 5 warrants their exclusion.

In conjunction with its motion to exclude Mr. Bevel from providing opinion testimony regarding blood spatter, the defense files the present motion to preclude Deputy Kinsey from presenting the same.

ARGUMENT

Given the absence of an opinion from Deputy Kinsey that the stains he examined are human blood, any expert opinion testimony he has regarding whether the stains are high velocity impact spatter only caused by a gunshot or high speed machinery should be precluded because it is not relevant, fails to assist the trier of fact, and will only result in confusion of the pertinent issues being presented to the jury.

A jury is properly presented with relevant, opinion testimony from an expert when such testimony “will assist the trier of fact to understand the evidence or to determine a fact in issue.” Rule 702, SCE. This determination is a prerequisite to the admission of opinion testimony under Rule 702. *See State v. Council*, 335 S.C. 1, 20, 515 S.E.2d 508, 518 (1999). Furthermore, evidence deemed admissible under Rule 702, must also pass muster under Rule 403 prior to its presentation to a jury. When the probative value of expert opinion testimony is substantially outweighed by its potential for unfair prejudice, confusion of the issues, or misleading the jury, it should be excluded. Rule 403, SCRE; *see also Council*, 335 S.C. at 1, 515 S.E.2d at 517 (citing *State v. Ford*, 301 S.C. 485, 490, 392 S.E.2d 781, 784 (S.C. 1990)).

Essential to the analysis before the Court in rendering its decision on the present motion is the fact that Deputy Kinsey does not opine that the stains presented to him by the State for blood spatter analysis *are in fact human blood*. Thus, his opinion that “the smaller stains that are present after treatment with LCV appear to be high velocity impact stains . . . only caused by a gunshot or high speed machinery” is irrelevant and cannot be based upon a reasonable degree of certainty

when the stains on which he is opining have tested negative for human blood. It is immaterial that the T-shirt stains appear in a pattern consistent with high-velocity impact blood spatter when there is no opinion the stains are in fact human blood.

Not only is Deputy Kinsey's testimony irrelevant; it does not assist the trier of fact in understanding the pertinent issues in this case and is therefore inadmissible under Rule 702, SCRE. The State seeks to present expert opinion testimony regarding blood spatter from Deputy Kinsey to support its crime scene reconstruction. It is essential to the State's theory that the cuttings from the upper part of the T-shirt have blood spatter. Recognizing Mr. Bevel's testimony may be excluded for the litany of reasons set forth in defendant's motion for sanctions and his motion in limine regarding Mr. Bevel's testimony, the State is attempting to back door in Mr. Bevel's blood spatter testimony through Deputy Kinsey. While it is true Deputy Kinsey ultimately concludes he cannot render an opinion on whether "the blood stains on Alex's white t-shirt [are] consistent with back spatter from a gunshot," his report contains opinions that are necessarily misleading in light of the absence of an opinion by him that the stains are in fact human blood. For example, he opines that some of the stains "appear to be high velocity impact stains...[and] based on [his] experience are only caused by a gunshot or high speed machinery." He then explains that "high speed machinery" as used in his opinion is "any mechanism with enough disruptive force to distribute and project blood over 100fps." *Id.* at 6. Such information does not assist the trier of fact in its determination of Mr. Murdaugh's innocence or guilt when Deputy Kinsey does not ultimately opine the pattern is blood spatter, much less that the underlying stains are human blood.

Deputy Kinsey's testimony would not assist the trier of fact; instead, it would mislead and confuse the jury and therefore it is properly excluded under Rule 403, SCRE. It is misleading and confusing to present the jury with blood spatter opinion testimony tied to Deputy Kinsey's

experience when Deputy Kinsey is not opining the stains are human blood. This is especially true when the jury will be presented with evidence the stains tested negative for human blood *in testing done by SLED*. SLED treated the T-shirt with LCV because no blood was visible on it. SLED does not know what caused the resulting oxidation pattern. Blood catalyzes the oxidation of LCV, which is why LCV is a *presumptive* test for blood—i.e., a test identifying something that might be blood. But the oxidation could be from detergent residue. Or it could even be old fish guts (Murdaugh sometimes wore the T-shirt when fishing). That is why SLED performed HemaTrace tests to determine whether the LCV oxidation pattern was caused by the presence of human blood. HemaTrace is a highly sensitive immunochromatographic test specific to human blood—a *confirmatory* test that definitively says something is or is not human blood. This is why SLED’s “DNA Casework Operations Manual” says that when a presumptive test is positive, but HemaTrace is negative, the report should simply state “no human blood identified.”

When Murdaugh’s T-shirt was tested with HemaTrace, the results were negative for human blood not once, not twice, not thrice, not four times, not five times, not six times, not seven times, not eight times, not nine times, not ten times, not eleven times, but twelve times—zero-for-twelve. Accordingly, Mr. Murdaugh requests the Court preclude the State from presenting expert opinion testimony from Deputy Kinsey related to whether the pattern of staining on Mr. Murdaugh’s T-shirt is consistent with blood spatter caused by the gunshots that killed Maggie and Paul.

Finally, to the extent that Deputy Kinsey bases his opinions on the Photoshop enhancements performed by Mr. Bevel, presenting those opinions at trial would be prohibited under the Confrontation Clause. The Sixth Amendment’s Confrontation Clause guarantees that, “[i]n all criminal prosecutions, the accused shall enjoy the right ... to be confronted with the witnesses against him.” U.S. Const. amend. VI. In *Crawford v. Washington*, the 541 U.S. 36

(2004), the U.S. Supreme Court held the admission of testimonial hearsay against an accused violates the Confrontation Clause if (1) the declarant is unavailable to testify at trial and (2) the accused has had no prior opportunity to cross-examine the declarant. *Id.* at 59. “The touchstone for determining whether an expert is giving an independent judgment or merely acting as a transmitter for testimonial hearsay is whether an expert is applying his training and expertise to the sources before him, thereby producing an original product that can be tested through cross-examination.” *United States v. Palacios*, 677 F.3d 234, 243 (4th Cir. 2012) (quoting *United States v. Johnson*, 587 F.3d 625, 635 (4th Cir.2009)) (internal quotation marks omitted).

In *State v. McCray*, 413 S.C. 76, 90, 773 S.E.2d 914, 921–22 (Ct. App. 2015), the South Carolina Court of Appeals ruled that a defendant’s Confrontation Clause right was violated when the State’s DNA expert, who was the peer reviewer for the analysis conducted by another agent, was permitted to testify. The testifying DNA expert was not present when the tests were conducted and her opinion was based solely upon the test results. Under these circumstances, the Court of Appeal’s concluded that the testifying DNA expert merely served as a conduit to introduce the results of the DNA tests conducted by another analyst. 413 S.C. at 91. To the extent Deputy Kinsey’s opinions regarding high velocity impact spatter are derived from Mr. Bevel’s Photoshop enhancements of photographs of the T-shirt, his opinion testimony regarding high velocity impact spatter must be excluded.

CONCLUSION

Based on the foregoing, the Court should grant Defendant’s motion in limine to preclude any testimony from Dr. Kinsey regarding blood spatter because it is not relevant, it fails to assist the trier of fact because it is not based upon a reasonable degree of certainty, and it will undoubtedly result in unnecessary confusion of the pertinent issues being presented to the jury.

Respectfully submitted,


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January 22, 2023
Columbia, South Carolina

State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion in Limine to Exclude Blood Spatter testimony of Deputy Kenneth Lee Kinsley

EXHIBIT A

(Bevel Report)

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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, 220 lbs., 5'9"
DOD: 06-07-2021, DOB: 09-15-1968

Paul Murdaugh
WM 176 lbs., 5'9"
DOD: 06-07-2021, DOB: 04-14-1999

Husband/Father to victims: Richard Alexander Murdaugh
DOB: 05-27-1968

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
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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
 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 July 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 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 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

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8 – Tire impressions consistent with dog's caretaker's 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
 #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 (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)

Gunshot wounds to Margaret:

1. Gunshot to left side of torso and head (See PP #2-3)
 Injury to left breast, left side of lower jaw of face and ear, skull & brain
 Path upward, no exit identified
2. Gunshot to left wrist (See PP #4)
 entrance on dorsal of left wrist
 Trajectory: back to front, upward, exit ventral of left forearm
3. Gunshot to left thigh (See PP #5)
 Entrance on anteromedial aspect of left thigh. No soot, there is stippling up to 2" surrounding the entry
 Exit back of left thigh, path front to back, left to right, downward
4. Gunshot back of head (See PP #6)
 Entrance right occipital scalp
 Injury to scalp, right occipital skull, brainstem & cerebellum, and right side of upper back
 Trajectory: Downward

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5. Gunshot to upper abdomen (See PP #7)

Entrance on right side of front of abdomen, no soot, sparse stippling, up to 3" above entry

Exit on left side of lower back, trajectory – back, right to left, downward

Gunshot wounds to Paul: (A and B used in autopsy report)**A. Shotgun wound of shoulder and head (See PP #8)**

1. Entrance on left shoulder & left side of neck
2. Trajectory: left to right, upward, slightly front to back, Exit right side of apex of head, no soot or gunshot residue
3. Multiple pellets and fragments of plastic wadding recovered
4. Aspiration of blood into upper airway

B. Shotgun wound to chest (See PP #9-11)

1. Entrance on left anterior chest wall, cookie-cutter pattern
2. Exit defect anterolateral of left side of chest in left axillary, frag of pink wadding
3. Deformed plastic wadding from exit wound defect
4. Trajectory: right to left, Path continues through left arm
5. Stippling to right side of entry wound

Storage/feed room evidence that assists in Paul's position when shot: (See PP #12-21)**1. Directional bloodstains and tissue found on:**

- entry door
- door threshold
- door frame
- above door on wall and ceiling
- items sitting on shelf to right (NW) of door as entering
- passive blood drips on the floor
- spatter on an opened dog food sack
- spatter on Emmerson white item possibly a refrigerator
- footwear impressions in blood
- blood spatter on all the items on shelf and floor in front of the window (See PP #21-23)

2. Other physical evidence that assists in Paul's position when shot include: (See PP #20-22)

- hair on top of door and on wall (See PP #20)
- two twelve gage (GA) spent shotgun shells on floor behind door if in open position (See PP #22)
- twelve windows panes on south wall with seven pellet defects (See PP #21)

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- shotgun wound to left shoulder and head (See PP #8-11)
- shotgun wound to right chest continuing through upper arm (See PP #9-11)
- shotshell plastic wad on floor beside the dog food sack (See PP #23-24)
- skull fragments and tissue on floor (See PP #23-24)
- brain tissue on walk outside entry door (See PP #18)
- Paul's resting body position is face down just outside the door threshold with his right foot and shoe on the interior of the threshold and his left foot and shoe on the exterior of the door threshold (See PP #18)
- Shoe sole impressions in blood in two different locations (See PP #24)
- Appears to be blood on the soles of Paul's New Balance tennis shoes (See PP #17)
- Shotgun wadding on right side of door threshold (See PP #15, 24)

3. *Area of origin for directional bloodstains* (See PP #25)

- Placing a line along the long axis of directional bloodstains identifies an area of origin where the blood source had to be to create the stains as found on the door, ceiling, and items on the shelf

Investigative Question – 1 (IQ-1) Which shotgun wounds to Paul occurred first and second?

- Data IQ-1:**
1. The shot to Paul's head that allows the brain to fall to the floor outside the entry door would *not* allow Paul to walk forward to the door, but would allow him to fall forward through the open entry door (See PP #18)
 2. The shot to Paul's chest and arm would allow taking steps forward after shot
 3. There are passive blood drips on the floor by the blue dog food sack and yellow marker #1 that are moving toward the entry door (See PP #16)
 4. Tiny blood spatter and some tissue is on most of the items to southeast (SE) of marker #1 toward the broken windowpanes (See PP #21)
 5. The exiting pellets out of the left upper arm would be inline with the broken windowpanes if Paul is located just SE of marker #1 and turned to his left (See PP #21)
 6. The shot to the chest could *not* create the blood volume and direction of stains on the entry door and the ceiling above the door with the door in an open position (See PP #20, 25)
 7. The shot to the head could create the blood volume and direction of stains on the entry door and the ceiling above the door while the door is in an open position (See PP #20, 25)
 8. Hair on door, ceiling and floor in proximity of the door could only have come from the head wound.

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Opinion IQ-1 The shotgun wound to the chest and through the upper left arm occurred first, then Paul moved toward the entry door and was shot a second time to his upper left shoulder continuing to his face and exiting out the apex of his head. This shot produced the blood spatter on the door and the ceiling above the door.

IQ-2: Where is the shooter positioned for the two shots to Paul?

- Data IQ-2:**
1. Both fired shotshells are found on the floor inside the storage room
 2. With Paul's body in an upright standing position and turned toward his left near the yellow marker #1 it is possible to get a correct trajectory alignment from the open doorway, but the shotgun must be extended past the door threshold for the ejected fired shotshell to land on the interior of the room.
 3. The directional blood spatter on the door and to the ceiling above the door places Paul's head in front of the top left panel of the open door.
 4. The second shot to Paul's upper left shoulder and into his face and out the top of his head positions Paul upright just inside the doorway, thus the shooter must move from the first shooting position to outside the west edge of the door. The trajectory from down to up striking the upper left shoulder and head requires the long axis of the shotgun to be angled upward. This is consistent with the directional blood spatter on the door and ceiling of the storage/feed room and consistent with Paul falling forward through the doorway onto the concrete walkway with his head coming to rest on the gravel. The large mass of brain material on the cement separates from Paul's head as he is falling forward.

Opinion IQ-2: The first shot places the shooter in the doorway with the shotgun extended sufficiently past the door threshold. The long axis of the shotgun must be in line with the shot to the chest and exiting pellets creating the defects to the seven (7) windowpanes.

The second shot places the shooter outside the doorway toward the west edge of the doorframe. The shotgun must be angled from the hip area upward to get a corresponding trajectory and directional blood spatter on the door and ceiling.

IQ-3: Can the sequence of shots to Margaret's body be identified?

- Data IQ-3:**
1. Margaret has five (5) different gunshot wounds
 2. Four (4) wounds have different trajectories, except for wounds #1 & #2 are associated to one projectile which hits the wrist bone causing a hairline fracture that causes the projectile to tumble as it exits the forearm then hits the breast still tumbling

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3. Six fired cartridge cases are in a walking cane handle shaped pattern showing movement during shooting (See PP #1)
4. Margaret and the shooter both show movement during the shooting
5. None of the five (5) wounds establish an identified three (3) defect points for a trajectory path beyond the body
The shot to the lower part of the doghouse on the S side of the doghouse does not align with any of the exiting projectile's wounds unless Margaret's body is low to the ground. (See PP #1, 26)
6. Shots #3 and #5 have stippling around the entry wound requiring a near end-of-muzzle position to entry wound (See PP #7-27)
8. The end-of-muzzle for all other shots were farther away from the entry wounds since no stippling was detected around the wound sites.
9. Shot #1 to left side has a close weapon long axis to torso trajectory path with a steep upward trajectory, but no stippling or soot identified*
10. Gunshot #2 to left wrist is associated with shot #1 wound but has no stippling or soot on first contact with the body
11. Bullet defects associated with this series of shots include the doghouse, an animal cage and wall to the NE of her body position, and metal bullet fragments in gravel
12. The ATV has multiple blood stains/tissue on the front of the vehicle consistent with a shooting as the victim was forward or in front of the ATV (See PP #28-29)
13. Investigators used a metal detector and sifted soil at Margaret's location checking for any projectiles with nothing found

*The trajectory path of wound #1 places the long axis of the weapon in line with the skin graze on the abdomen, the wrist, the breast, lower jaw, skull, and brain which places Margaret's body in one (1) of three (3) possible positions for this shot.

- 1) The body upright and bent backwards such as leaning back over the hood of the ATV
- 2) The body bent at the waist forward, gravity pulling the body downward such as the breast, with the shooter to the left of Margaret and the shot misses her side and hits her abdomen for the graze shot then her wrist, breast, and face
- 3) The body in a prone position with the weapon held close to the ground and in line with the long axis of the body

The position to best comport with all physical evidence is #2 bent at the waist and shot from her left side and behind her.

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Opinion IQ-3: Due to the perceived movement of both the shooter and victim during the shooting and no observed three (3) defect points for aligning a body position for each shot is not possible.

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 1Q-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

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

IQ-7: Can the position of the shooter for Margaret's shooting be identified.

- Data IQ-7:**
1. Extrapolating backwards for bullet defects in fixed objects, doghouse, animal cage and workshop wall, will give a direction and general area where the shooter would have been when shooting
 2. Marker #13 shows a bullet strike in gravel, consistent with the beginning of the cartridge trail leading to Margaret's body position
 3. Margaret has five (5) bullet wounds. If #1 and #2 are associated with the same shot, then four (4) bullets struck Margaret leaving two (2) of the six (6) fired shots missing her
 4. While expended shell cases can bounce (less likely on dirt, grass, or gravel) or be kicked with people moving around the crime scene, the location and pattern of their placement should still be considered
 5. Six (6) fired S&B .300 cartridges are found forming a cane with hock/handle extending from the E, moving to W and then going to the N next to Margaret's body position
 6. Two (2) of the entry wounds to Margaret have stippling around the wound, #3 left thigh and #5 upper abdomen, placing the end-of-muzzle closer to the victim than the other three wounds
 7. The weapon for the .300 is not known. The most common rifle used in America firing .300 is an AR 15 which ejects the fired cartridge cases forward and to the right

Opinion IQ-7: Due to the great amount of movement by both Margaret and the shooter along with the lack of three (3) defect points to identify possible trajectory paths the shooter's shooting position is generally to the left along the path of the fired cartridge cases and next to Margaret's body for wounds #1 & 2.

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

Murdaugh page 10 of 12

Opinion IQ-8: Many different factors can affect and alter bloodstains before they completely dry and become "set or fixed" on clothing. Once the stains are completely dry and are set, in most instances will look the same over time even after washing and handling them.

IQ-9: Would the shooter for either victim get blood back spatter on their person or clothing?

Data IQ-9:

1. Mist size bloodstains from back spatter can travel up to four (4) feet from the source
2. Tissue or blood mixed with tissue can travel farther than four (4) feet due a heavier mass
3. If the distance from the shooter's body is greater than four (4) feet to the victim, mist spatter is not generally expected to get on the shooter unless the spatter is above the shooter then gravity pulling the spatter downward can create an arc pattern
4. In long barrel weapons such as shotguns and rifles the distance to the shooter is measured from the end-of-muzzle back to the trigger area along with how far away the end-of-muzzle is from the entry wound, an angled barrel versus a 90 degree angle may place the shooter closer to the entry wound
5. The best gage to determine if back spatter will get on the shooter is to determine the amount of back spatter on the weapon(s) (if available) and on surfaces surrounding the victim when shot
6. Are there intervening objects between the victim and shooter such as a wall or the victim's clothing
7. When there is an exit wound the majority of spatter created will go in the direction the projectile(s) are traveling creating forward spatter with a volume generally greater than the back spatter
8. Back spatter is common in a shooting if a second shot hits an already bleeding area from a first shot
9. Back spatter is more likely in a shotgun wound due to multiple pellets following each other after the wound is created

Opinion IQ-9: For the first shot to Paul the shooter is farther than four (4) feet from Paul, thus no back spatter is expected to land on the shooter or his clothing.

For the second shot to Paul there is an exit wound directing most of the spatter in the same direction as the force which is away from the shooter for the majority of spatter.

Since the trajectory of this shot is upwards resulting in some of the spatter, tissue, and hair to be deposited on areas above the victim, it can be expected due to gravity along with blood impacting these areas with sufficient force secondary spatter may also have been created raining down back into the scene and potentially on the shooter.

Margaret's #1 shot to her breast, lower jaw of face, ear, and head, the M.E. states "no exit identified." There is no soot or stippling. The shooter is likely four (4) feet away or farther. From the shooter's position to this shot I would look for spatter on their clothing.

Murdaugh page 11 of 12

Margaret's #2 wound is to her wrist with an exit and is associated with wound #1.

For Margaret's five shots #3 & #5 have stippling around the entry wound which places the shooter and the end-of-muzzle closer to these two entry wounds. Shot #3 to the left thigh and #5 to the upper abdomen both have exit wounds sending the majority of blood spatter away from the shooter.

Margaret's #4 wound is to her back of head striking the skull, brainstem and cerebellum and right side of the upper back likely from bullet fragments or skull continuing to the upper back shoulder. The majority of blood spatter will be in the direction of force away from the shooter.

Only one shot from Paul is likely to create back spatter, the shot to his shoulder and head. The shooter is certainly in a close enough range to get spatter on their clothing and the clothing would be examined for spatter. The weapon is likely to have blood spatter and/or tissue on it, if found.

Only one shot for Margaret, her head, is likely to produce back spatter, but the primary force is away from the shooter and the shooter is likely at the four (4) foot range or farther.

In this double shooting I would always look for back spatter on the weapons and possibly into the barrel if the weapon(s) and if the weapons are known and available. I would also examine 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 spatter on the shooter or their clothing it is certainly possible given the facts and circumstances surrounding this incident.

IQ-10: Does the physical evidence support a struggle between Paul and the shooter given the shot to his chest?

Data IQ-10:

1. Stippling to the right side of the wound is observed on the clothing or skin of Paul's chest wound
2. Paul's upper torso is canted to his left relative to the long axis of the shotgun at the instant of discharge
3. Paul's body is in an upright position at the instant of discharge
4. The shotgun's ejection port is at least past the entry door threshold

Opinion IQ-10: There is no physical evidence to identify a struggle for the chest shot.

IQ-11: Could the shooter be prone or kneeling on the cement at the time of the shoulder-head shot?

Murdaugh page 12 of 12

Data IQ-11:

1. If the shooter is prone on the cement shooting upward to get the correct trajectory from the shoulder to the head, Paul would have to lean his body to his left
2. In #1 above body's position the correct placement of Paul's head is not possible to correspond with the spatter on the door, wall and ceiling
3. A kneeling position is more likely to position the shooter and Paul to get the correct trajectory and spatter to the door, wall and ceiling
4. A shooter from either position would have to instantly move at the discharge of the weapon before spatter from the wound lands on the ground, this is not impossible but is improbable

Opinion IQ-11: The best explanation to comport with the physical evidence is with the shooter in standing position to the S side of the open doorway

IQ-12: What is the best explanation for how the cell phone dislodged from Paul's back pocket?

Data IQ-12:

1. The back pocket reportedly is where Paul's cell phone was carried
2. The elastic at the top of the pocket will assist in preventing the phone from falling from the pocket
3. The elastic pocket top has transfer blood on the top edge of the pocket consistent with a bloody finger grabbing the pocket to pull the pocket open

Opinion IQ-12: The phone may be taken from the pocket by a person with blood on their fingers transferring blood onto the elastic pocket top when removing the phone.

***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

State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion in Limine to Exclude Blood Spatter testimony of Deputy Kenneth Lee Kinsley

EXHIBIT B

(Bevel Supplemental Report)

Tom Bevel, President
Ross M. Gardner, Vice President

Partners:
Tom "Grif" Griffin
Craig Gravel
Jonathyn Priest



Associates:
Ken Martin
Cele Rossi
Kim Duddy

Sunday, December 18, 2022

David H. Owen
dowen@sled.sc.gov

Addendum to 20-22 SC March 29, 2022

On December 01, 2022, I received a lab report via email dated November 10, 2021, in reference to the above referenced case regarding the results of Forensic Scientist Sara Zapata's HemaTrace (HT) conformation tests on the Murdaugh t-shirt.

The report noted that twelve (12) areas of the t-shirt tested were negative for the presence of human blood.

This new information was provided by David Owen on a conference call detailing the negative HT test results. Based upon my training, experience of bloodstain back spatter cases, in experimentation, using oblique lighting and magnification and/or microscopy some visible bloodstains may be found along with the sub-millimeter misting stains not visible to the unaided eye. These findings lead to the chemical testing of the area in question not only to enhance the visible bloodstains but also to visualize those not readily visible (latent) bloodstain. This additional information may also allow for determination of the pattern type(s) and distribution of said pattern(s).

Additional information was given on a conference call with David Owen in reference the 11-10-2021 HT test results being negative. In my experience of past bloodstain back spatter cases and experimentation, using oblique lighting and magnification and/or microscopy some visible bloodstains are found along with the sub-millimeter misting stains that may not be visible to the unaided vision. This finding leads to chemical enhancement to show all the bloodstain distribution pattern.

In accordance with best practices, and with knowledge of this new information, I devised and conducted experiments assessing the results as it related to my opinion submitted in my original report. The experiments were conducted using known human blood that was misted onto white cotton t-shirt squares. The known human blood that was misted onto the test cotton squares were then tested with HemaTrace.

1. A control test with known human blood used in the experiments using HT produced a positive result.
2. Using the known human blood source mist bloodstains were created onto the shirt material.
3. Five (5) approximately 6 X 6-inch test squares with known bloodstains found were cut from the shirt.
4. Nothing was done to square #1 except HT testing with positive results before LCV processing.

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

5. Square #1 was then processed with LCV.
6. Square #2 was misted with sterile water to wet the material due to reported misting rain and sweat possibly diluting any blood on the shirt in question while at the scene. The degree of dampness from the scene is not known.
7. Square #3 had no misting of water added to the square.
8. Square #4 had no misting of water added to the square.
9. Square #5 had no misting of water added to the square.
10. All test squares were allowed to completely dry for twenty-four (24) hours after the LCV processing.
11. All test squares were sprayed with LCV and allowed to completely dry over a twenty-four (24) hour period.
12. Recommended sample sizes for HT testing is 3mm squared.
13. None of the blood on the test squares measured 3mm squared as they were misted.

Opinion on the first completed report and then considering new information and testing.

The opinion given based on the information known at the time was that the size and distribution of stains on the t-shirt worn by Mr. Murdaugh are consistent with a disruptive force. With the LCV test being positive for blood added to the probability that the stains came from a disruptive force consistent with a back spatter blood event such as the discharge of a firearm. I stand by this opinion.

The additional information that no blood was HT tested before the LCV processing, but only after the LCV processing all twelve (12) areas tested with HT produced negative results, must be considered in my analysis. Unknown to me is whether oblique lighting, magnification or microscopy was used in the search for bloodstains on the t-shirt in question prior to the LCV processing.

Opinion:

The original opinion based on the information available at the time is still correct.

Considering the additional information and my testing with known human blood using HT on the spatter sized stains on the test white t-shirt squares all produced negative results for human blood after LCV processing.

While there is not a conformation test for human blood on the questioned white t-shirt my testing with known human blood confirmed human blood only before LCV processing and negative for human blood after LCV processing.

Possible variables as to why human blood would test negative with the HT testing is dilution from reported misting rain and sweat while being worn along with the small misting sized stains used for the testing which is much smaller than the recommended 3mm squared.

Respectfully,

Tom Bevel
Attachment PP

Technical review by K. Martin

State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion in Limine to Exclude Blood Spatter testimony of Deputy Kenneth Lee Kinsley

EXHIBIT C

(Kinsey Report)

STATE OF SOUTH CAROLINA)

COUNTY OF COLLETON))

State vs Richard Alexander Murdaugh-(22-GS
-15-00592 through -595))

AFFIDAVIT AND PRELIMINARY

**EXPERT OPINIONS OF
DR. KENNETH LEE KINSEY**

1. My name is Dr. Kenneth Lee Kinsey. I am over twenty-one (21) years of age, of sound mind, and in all respects qualified to represent my expert opinions and submit this Affidavit.
2. I am currently employed as the Chief Deputy of the Orangeburg County Sheriff's Office. In my current role, I manage all daily operations, conduct internal affairs investigations, conduct criminal investigations as well as train law enforcement staff. I manage an annual budget of approximately \$9.5 million dollars and serve as direct supervisor to all Sheriff's Office employees.
3. I earned a doctorate degree (Ph.D.) in Criminal Justice in May of 2019 from Walden University. My dissertation research "Use of Force and Perceptions of Public Attitude Held by Police Trainers"¹ utilizes a quantitative analysis to determine the psychological influences of officer motivation from those responsible for providing instruction to police officers such as Academy Instructors, Departmental Training Officers and Field Training Officers.
4. In December of 2011, I earned a master's degree (M.S.) from Troy University in Criminal Justice. I received my bachelor's degree (B.S.) in May of 1991 from Clemson University in Parks, Recreation, and Tourism Management with an emphasis in Resource Management.
5. I have qualified as an expert witness in Crime Scene Investigations/Reconstruction, Latent Fingerprint Identification/Processing, Footwear Comparison/Identification, Blood Stain Pattern Analysis, and Fabric Impression Examination. Additionally, the following credentials certify me as an expert to review this case: I was previously certified as a Crime Scene Investigator (#1632) by the International Association for Identification, Successful completion of all SLED proficiency training and annual requirements, Leadership and Strategic Planning Training from the U.S. Attorney's Office, Special Weapons and Tactics Training from York County's Sheriff's Office, NRA Law Enforcement Handgun Instructor, South Carolina Criminal Justice Academy Firearms & Patrol Rifle Instructor, Forensic Examination of Violent Crime Scenes for Ron Smith & Associates and Training in Homicide, Capital Crimes and Punishment from the Regional Organized Crime Information Center, and my knowledge and experience of police policies, practices and customs developed during my extensive law enforcement career.

¹ Kinsey, Kenneth Lee, "Use of Force and Perceptions of Public Attitude Held by Police Trainers" (2019). *Walden Dissertations and Doctoral Studies*. 6911. <https://scholarworks.walden.edu/dissertations/6911>

6. Additionally, I have gained vast experience conducting crime scene investigations throughout my 30 year law enforcement career, serving in the following capacities: criminal investigator (to include property and violent crimes), violent crimes investigator (OCSO), crime scene and latent prints (OCSO and SLED), and assisting all agencies in the 1st circuit on request.
7. I have actively processed over 800 death scenes in my career, as primary or back-up, and I currently attend and assist with many scenes in my jurisdiction. Additionally, I have assisted by reconstruction and/or evidence processing in several thousand other cases where I did not respond as primary or back-up crime scene investigator.
8. I have attended over 200 autopsies throughout South Carolina for the purpose of identifying and gathering forensic evidence.
9. In addition to my current assignment, and the former positions described above I have also held the following: Class 1 Administrative Major for the Orangeburg County Sheriff's Office, Class 1 Chief Investigation for Dorchester County Solicitor's Office, Special Agent II and S.W.A.T. for the South Carolina Law Enforcement Division as well as Lieutenant of the Special Operations Division for the Orangeburg County Sheriff's Office.
10. In addition to the various law enforcement training and instruction I provide, I also serve as an Adjunct Professor at Claflin University, where I have been teaching Crime Scene Investigations and other CJ related classes since 2012.
11. My involvement in this matter is made at the direction of Chief Attorney S. Creighton Waters, South Carolina Attorney General's Office. I was advised to review and answer twelve (12) investigative questions as were requested in the Bevel report. The following includes my professional assessment of the criteria:

DOCUMENTS/EVIDENCE REVIEWED

- David Greene BWC recording June 7, 2021
- Sled Crime Scene Inv. Summary (46 pg)
- 1st interview of Alex Murdaugh (34:35)
- Autopsy Report for Paul Murdaugh (6 pg)
- Photos from Autopsy of Paul Murdaugh (34)
- Autopsy Report for Margaret Murdaugh (8 pg)
- Photos from Autopsy of Margaret Murdaugh (38)
- DNA Report June 25, 2021 (18 pg)
- DNA Report July 25, 2021 (17 pg)
- CS Photos/Evidence Processing -- (449)
- CS Photos/Evidence Processing -- (357)
- L21-09074 Lab Photos of Shotgun (30)
- FA Report July 23, 2021 (10 pg)
- Mercedes GLS Processing Photos (138)
- Lab Photos of Victim's Clothing (200)
- Evidence Processing- (25)
- Trace Reports (4)
- 1. June 15, 2021
- 2. June 18, 2021
- 3. September 20, 2021

- 4. October 25, 2021
- Visual Observation of Alex Murdaugh shirt at SLED Forensics Laboratory (Did not Handle) December 8, 2022
- Visit to 4147 Mozelle Ln (December 12, 2022)
- Consultation at MUSC w/ Dr. Riemer (12/16/22)
- (12) page Report titled "Homicide Investigation of Paul and Margaret Murdaugh BGA Case 2022-01 SC": Issued by Tom Bevel of Bevel Gardner & Associates (03/29/22)
- 3 page Bevel Addendum (12/18/2022)

OVERVIEW OF INITIAL CRIME SCENE 4147 MOZELLE LN.

The double homicide took place at a k-9 kennel on the large property owned by Alex Murdaugh (Attachment-1). It was my understanding that the property had been utilized as an outdoor/hunting retreat by previous owners. The property is very large with small pines, hardwoods, open fields, a large house (residence), a smaller house, a repurposed airplane hangar, and separate k-9 kennel. The property also contained several outbuildings and sheds that I viewed from a distance but did not examine. Paul Murdaugh had been shot two times with a shotgun in the confines of a feed/mudroom that was connected to several covered but outdoor dog runs (Attachment-2). Paul was discovered on the covered sidewalk outside the door of this room and was discovered prone (face-down) on the cement walkway (Attachment-3). Maggie Murdaugh was a short distance away and was located NW at the end of the repurposed hanger that is now a covered shed. Maggie Murdaugh was also prone (face-down) and had succumbed to several gunshots from a rifle (Attachment-4). Alex Murdaugh reported that he had discovered the two victims upon his return to the property.

Gunshot Wounds to Margaret Murdaugh:

Documented as (1-5). The numerical assignment does not note sequence of wounds received.

1. Gunshot to anatomical left side of torso. Grazing wound to the abdomen with projectile travelling upward through the left breast. Bullet continues into the lower left jaw, face, and ear. Bullet proceeds into the brain with no apparent exit located. Terminal/Immediate death.
2. Gunshot to left wrist. Entrance on dorsal side with an exit on ventral side (non-fatal).
3. Gunshot to left thigh. Entrance of wound is medial front to back, downward at a left to right angle. Exit wound is apparent on the back of thigh. This wound contains stippling (2 in.), no soot (non-fatal).
4. Gunshot to back of scalp/head. Anatomical right, terminal/Immediate severe brain injury. Exits head and travels into upper shoulder/back area at a downward trajectory.
5. Gunshot to upper abdomen. Entrance on anatomical right side of abdomen (rt. To left, front to back). Potentially fatal but not immediate. Severe organ damage. Exit wound on lower left side of back. This wound contains stippling (3 in.), no soot. Similar angle to wound number 3.

Gunshot Wounds to Paul Murdaugh:

Documented as (A and B). The alphabet assignment does not note sequence of wounds received.

- A. Shotgun wound to shoulder and head (small game # shot). Entrance on top of left shoulder travelling in anatomical left to right direction. Enters left side of neck and proceeds into head. Brain was severed and exited through the anatomical right side of head. Upward trajectory, slightly front to back. Brain was completely detached from head. No soot/stippling. Terminal/immediate death.
- B. Shotgun wound to chest (buckshot). Entrance on anatomical left side of chest near midline. Stippling is present on anatomical left side of entrance wound. Left to right trajectory exiting left side of chest and underarm. Pink plastic wad is present in exit chest wound. Shot spreads and continued through left upper arm.

Twelve (12) Investigative Questions

- IQ-1: What is the order of the shotgun wounds to Paul Murdaugh (shot sequence)?**
IQ-2: Where is the shooter positioned for the two (2) shots to Paul?

IQ-1 & 2 Opinion:

The shot along the midline of Paul's chest was the first wound that he sustained. The second and final shot was to his left shoulder, into his jaw, and exiting his head.

First wound:

- a. This shot was delivered from several feet away as Paul stood just shy of the approximate center of the feed room (Attachment-5).
- b. His position was facing slightly SW at the time of the buckshot penetration. After entry (large, angled wound), the buckshot travelled subcutaneously across his left chest and exited under his arm.
- c. Most of the shot then entered the underside of the left arm and exited again on the outside of the upper arm.
- d. This position is supported by the continued path of at least seven (7) buckshot pellets that continued through the windowpanes at the rear of the feed room (Attachment-6).
- e. An open shot cup or wad was visible at the exit point under the left arm.
- f. 90 or near 90-degree blood drops on the cement show that Paul was still standing but moving slowly toward the door (Attachment-7).
- g. Partial FW impressions in the blood droplets supports Paul's movement towards the door.

- h. Blood and body fluids, the continued path of buckshot through the windowpanes, and the location of the fired shotshell behind the door would place the shooter standing in or slightly outside the room's door approximately midline of the feed room, with the breach of the shotgun inside the room (Attachment-8).

Second Wound:

- A. The second wound to Paul occurred at the threshold of the feed room door and was immediately terminal (Attachment-9).
- B. This shot was unlike the first wound in that this wound was produced by a shotshell of small shot, commonly referred to as birdshot, BB shot, or chill shot.
- C. The shot to Paul's head entered along the top of his left shoulder, and into his left cheek area at an angle upward into the brain before exiting the top right portion of the head.
- D. Paul's height of 5'8", and the sharp angle upwards, approximately 135 degrees up would support that Paul's left side was dipping slightly, and head slightly forward as he was standing or exiting the feed room at the time of the second shot.
- E. Blood, tissue, blood volume, and body fluids on the door, and specifically the upper door frame, directionality, void areas to the west side of door frame (Attachment-10), spatter documented on the SW side of shelved items inside the door (Attachment-11), and the position of the severed brain would place the shooter outside the door to the west side of entry.
- F. The length of the shotgun would be needed for a reasonable degree of certainty, but it is unlikely that the shooter was standing with a shouldered weapon at the time of the second discharge.

IQ-3: Can the sequence of shots to Margaret's body be identified?

Margaret has (5) gunshot wounds. Gunshots wound 3 (left thigh) and gunshot wound 5 (upper abdomen) have similar range, stippling, and trajectory. These two wounds would generally not cause immediate death or immobility. Gunshot wound 2 (left wrist) may or may not be a continuation of gunshot wound 1 (anatomical left side). Gunshot 2 would also be considered not lethal in most cases if it is not a continuation of the upward left torso wound. Gunshot wound 2 could be the results of the projectile located in the doghouse due to its lack of incapacitation and the unknown movements of Margaret and the shooter. Estimates to ejector direction and range are not sufficient without test firing the same weapon with same ammunition to measure with certainty. The location of cartridge casings would only provide a possible location of the shooter and Margaret and are subjective due to their unknown movements. Therefore, I must base my opinion on the physical location and position of the deceased, bullet path of known wounds, and physical damage caused by those wounds

- Gunshot wounds 1 and 4 would cause immediate incapacitation and would cease all movement.
- Lacking evidence that Margaret's body had been moved or manipulated, the evidence suggests that gunshot wound 2, 3, and 5 were the first series of shots delivered to Margaret.
- The exact sequence can't be determined except these three wounds were received in an upright or semi-upright position prior to the two wounds that were immediately fatal.
- There was no evidence that Margaret's body was supine, or had been moved or manipulated (blood pool, blood run).
- There were no projectiles located in the soil underneath the deceased that would suggest a near 90 degrees shot downward.

IQ-3: Opinion

It is my opinion that gunshot wound 1 would have been delivered after 2,3, and 5 from Margaret's left side, and from behind. This shooter position would explain the grazing wound to her abdomen, path through the left breast, jaw, and into her head. Margaret's position would have been prone or nearly prone holding herself up on her knees and at least her right hand with her shoulders and head down. Gunshot wound 2 would be included in this sequence if it is not the projectile in the doghouse. The final shot (#4) would have been from a distance and travelling through the crown of Margaret's head and into her upper back (opposite direction of gunshot wound 1).

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

- 100 plus stains on the front of the neck area of white t-shirt (transfers/projected blood stains)
- -1mm
- Enhanced w/Leuco Crystal Violet (LCV)
- Cutting already taken
- Evidence processing photos/reports/analysis

IQ-4: Opinion

The front of the white t-shirt contains what appears to be transfer and spatter stains. The lower and larger stains are not spatter of any speed but transfer from another object (See IQ-5: Opinion). The smaller stains that are present after treatment with LCV appear to be high velocity impact stains. These stains are characterized as being -1mm in size, and based on my experience are only caused by a gunshot or high speed machinery. High speed machinery would not necessarily be defined in this case as a drill or similar object but by any mechanism with enough disruptive force to distribute and project blood over 100 fps. After consideration of the original opinion, analysis

reports, and follow-up experimentation, this expert cannot render an opinion on IQ-4 above.

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

- The photographs of the t-shirt exhibit at least two distinct types of blood stains, and in two areas.
- The first would be the multiple small stains near the top neck and chest area of the garment.
- The larger stain at or near the front bottom would be the second type blood stain.
- BWC video depicts Alex Murdaugh wiping his face and forehead with the second/bottom area, with his hands on the inside of the garment.

IQ-5: Opinion

It is my opinion that the bottom stain is representative of a transfer of spatter from one area to the shirt by way of a wipe. A wipe is when an object meets another object that already contains blood (BWC video). Alex Murdaugh wiped his face and forehead with the area of the t-shirt that now contains the larger stain. The shirt in this case could have wiped the blood from the face/forehead. The 100 + smaller stains at the top of the shirt at the neck/chest area are distinctly different and do not represent a transfer from wiping the face.

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?

- Both victim's received immediate and terminal wounds.
- No heartbeat (pumping blood).
- No expectorated blood.
- Attempting to roll body would produce elongated type spatter stains but only low and at shoe level.

IQ-6: Opinion

In my opinion, the only type of blood stain that would be expected to be on the face would be a transfer (swipe) pattern from checking for signs of life (body-hand-face).

IQ-7: Can the position for the shooter for Margaret's shooting be identified?

Margaret has (5) gunshot wounds. Gunshots wound 3 (left thigh) and gunshot wound 5 (upper abdomen) have similar range, stippling, and trajectory. These two wounds would generally not cause immediate death or immobility. Gunshot wound 2 (left wrist) may or may not be a continuation of gunshot wound 1 (anatomical left side). Gunshot 2 would also be considered not lethal in most cases if it is not a continuation of the upward left torso wound. Gunshot wound 2 could be the results of the projectile located in the doghouse due to its lack of incapacitation and the unknown movements of Margaret and the shooter.

IQ-7: Opinion

It is my opinion that an exact position of the shooter cannot be determined in relation to Margaret. The most accurate information available to narrow down the position of the shooter's position is the physical location and position of the deceased, bullet path of known wounds, stippling or lack thereof, and physical damage caused by those wounds. Estimates to ejector direction and range are not sufficient without test firing the same weapon with same ammunition to measure with certainty. The location of cartridge casings would only provide a possible location of the shooter and Margaret and are therefore subjective due to their unknown movements (IQ-3, Kinsey, 2022).

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

- Environmental factors such as (extreme) heat, humidity, moisture, mold, mildew, and physical manipulation of a wet garment can affect the appearance of blood stains on a garment prior to the garment being dried.
- Shape and type of stain would remain constant after garment is sufficiently dried but could fade or darken in appearance over time if not properly dried, packaged, and stored in controlled conditions.

IQ-8: Opinion

In my opinion, environmental factors can affect the appearance of blood stains on a garment if the garment is exposed to harsh conditions and if the garment is not properly dried and handled. Blood stains that are present on garments that have been properly dried, packaged, processed, and are (fixed) will retain their shape, but may fade over time if exposed to the described extreme conditions as stated above.

IQ9: Would the shooter for either victim get blood back spatter on their person or clothing?

Paul

- Distance of shooter (several ft.), lack of blood and tissue letting, and angle of Paul would likely not produce back spatter on shooter for gunshot wound (#1).
- Birdshot close to muzzle end of weapon (#2).
- Possibility of back spatter on (#2) if shotgun was shouldered due to shot direction, gravity, and scattering of small pellets inside open wounds.
- Proportionately more blood and tissue blow back would be expected if shooter was closer to the muzzle end of weapon.

Margaret

- Two gunshot wounds exhibited stippling (#3 & #5).
- Neither were close proximity to each other.
- Remaining wounds were from a distance greater than would be expected to project blood.

IQ-9: Opinion

It is my opinion that the fatal shot to Paul's shoulder, face, and head would likely produce enough back spatter (#2), and would be within range to contaminate the shooter. This amount would produce very small droplets (-1mm/ +100 fps) of projected blood in the direction of the shooter if shouldering the weapon and firing in a parallel to the ground position. The likely presence of blood droplets and other tissue would increase in quantity if the shooter was not behind the stock, but was positioned closer to the muzzle end of the weapon (increase in angle, gravity).

Additionally, the only gunshot wound on Margaret that would be sufficient to produce back spatter would be GSW (#4), due to distance, clothing, or precise entry of bullet (Single projectile vs. shotgun pellets). However, this wound would not project blood and tissue far enough in most cases to contaminate the shooter.

IQ 10: Does the physical evidence support a struggle between Paul and the shooter given the shot to his chest?

- Stippling on anatomical left side of chest wound.
- Paul is angled.

IQ-10: Opinion

I identified no physical evidence that would suggest or support a struggle between Paul and the shooter.

IQ-11: Could the shooter be prone or kneeling on the cement at the time of the shoulder-headshot?

IQ-11: Opinion

- G. Paul's height of 5'8", and the sharp angle upwards, approximately 135 degrees up would support that Paul's left side was dipping slightly, and head slightly forward as he was standing or exiting the feed room at the time of the second shot.
- H. Blood, tissue, blood volume, and body fluids on the door, and specifically the upper door frame, directionality, void areas to the west side of door frame, spatter documented on the SW side of shelved items inside the door, and the position of the severed brain would place the shooter outside the door to the west side of entry.

The length of the shotgun would be needed for a reasonable degree of certainty, but it is unlikely that the shooter was standing with a shouldered weapon at the time of the second discharge (IQ-1 & 2 Opinion: Kinsey, 2022)

IQ-12: What is the best explanation for how the cell phone dislodged from Paul's back pocket?

- Reported to have been carried in rear pocket.
- Elastic on top.
- Located and documented on pocket.
- Blood transferred inside top band of pocket.
- Was not removed from pocket by Paul after second gunshot wound.

IQ-12: Opinion

It is my opinion that the phone was removed from Paul's rear pocket by someone other than Paul, and after the fatal shot. The blood stain inside of pocket was produced during phone's retrieval, and prior to phone's placement on top of the rear pocket.

I specifically reserve the right to amend, alter, and/or supplement this Affidavit and my Expert Opinions contained herein should new information become available.

I hereby render the above expert opinions (11 pages + the following A-L Attachments) regarding the homicides of Paul and Maggie Murdaugh, occurring June 6, 2021. The undersigned, under the pains and penalties of perjury, affirms that the foregoing facts are true to the best of my abilities.


Dr. Kenneth Lee Kinsey

THUS, DONE and SIGNED before me, NOTARY PUBLIC, this 9th day of January, 2023.

Melissa G. Bochette
(Print)

Melissa G. Bochette
(Signed)

Notary Public South Carolina

My Commission Expires Dec. 14, 2023

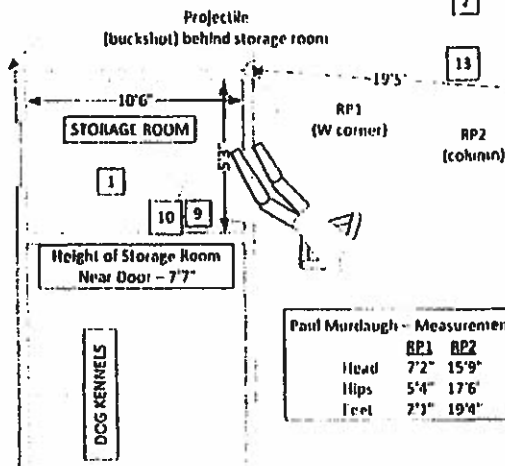




Attachment 1

L21-09074
Homicide
SLED Low Country/Colleton CSO
June 7, 2021
4147 Moselle Road, Islandton, SC 29929
Lead SLED CS Agent: S/A Melinda Worley
Prepared by S/A M. Worley on 7/7/21 (NW)

Legend
Marker 1: Shotgun wad
Markers 2 - 7: Cartridge cases
Marker 8: Tire Impressions
Markers 9 - 10: Shotshells
Marker 11: N/A (not used)
Marker 12: Suspected biological material
Marker 13: Bullet strike in gravel

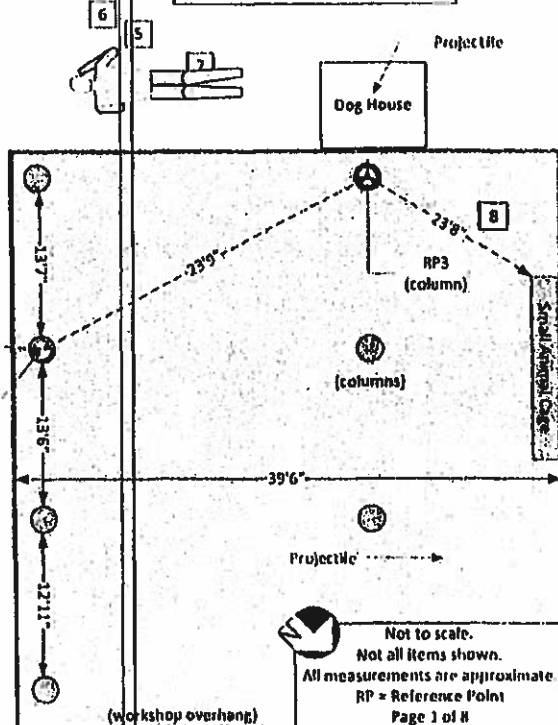


Paul Murdaugh - Measurements

	RP1	RP2
Head	7'2"	15'9"
Hips	5'4"	17'6"
Feet	7'1"	19'4"

Margaret Murdaugh - Measurements

	RP1	RP3
Head	32'3"	15'8"
Hips	34'0"	13'1"
Feet	35'9"	10'1"



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.

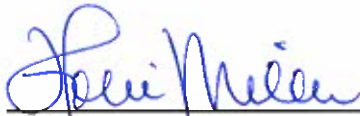
Indictment Nos. 2022GS1500592 – 00595

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 January 23, 2023 did serve by hand delivering the following documents to the below mentioned person:

Document: Motion in Limine to Exclude Blood Spatter Testimony of Deputy Kenneth Lee Kinsey

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

JAN 23 2023 AM 9:01
COLLETON CO GS, REBECCA H. HILL