



Department of Pathology and
Lab Medicine
165 Ashley Ave, Suite 309
MSC 908
Charleston, SC 29425

Patient: Murdaugh, Paul
MRN:
DOB: 4/14/1999 Sex: Male

Colleton County Coroner

Forensic Autopsy Report (Final result)

Authorizing Provider:	External Provider	Ordering Provi
Pathologist:	Ellen C. Riemer, MD JD	

Specimens

A Postmortem exam

This is a true and accurate copy of the original.

Date of Autopsy
6/10/2021

Date of Death
6/7/2021

Maxine T. Robinson
Notary Public, State of South Carolina
My Commission Expires April 15, 2024

Authorization

Mr. Richard Harvey, Colleton County Coroner

Injury

Subject was shot

At Work

No

Cause of Death

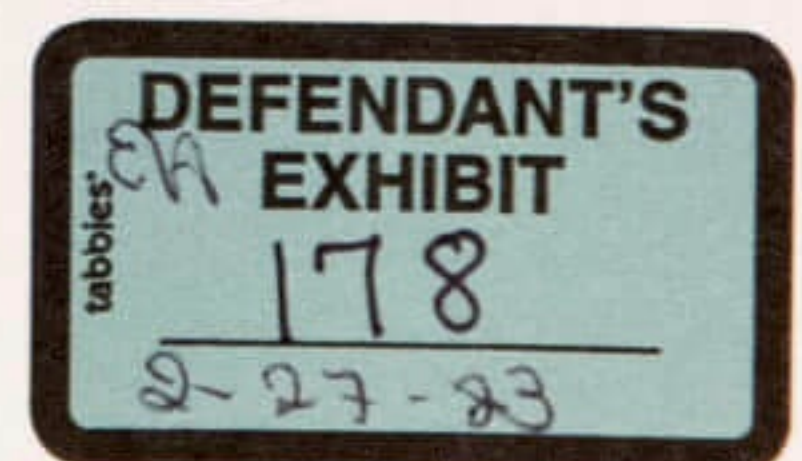
Shotgun wounds of head and chest

Department of Pathology and Laboratory Medicine
Chair: Steven L. Carroll M.D., PhD.

Anatomic Pathology	Autopsy Pathology	Client Services	Clinical Pathology
Phone: 843-792-3821	Phone: 843-792-5416	Phone: 843-792-0707	Phone: 843-792-0707
Fax: 843-792-8974	Fax: 843-792-3537	Fax: 843-792-4896	Fax: 843-792-4896

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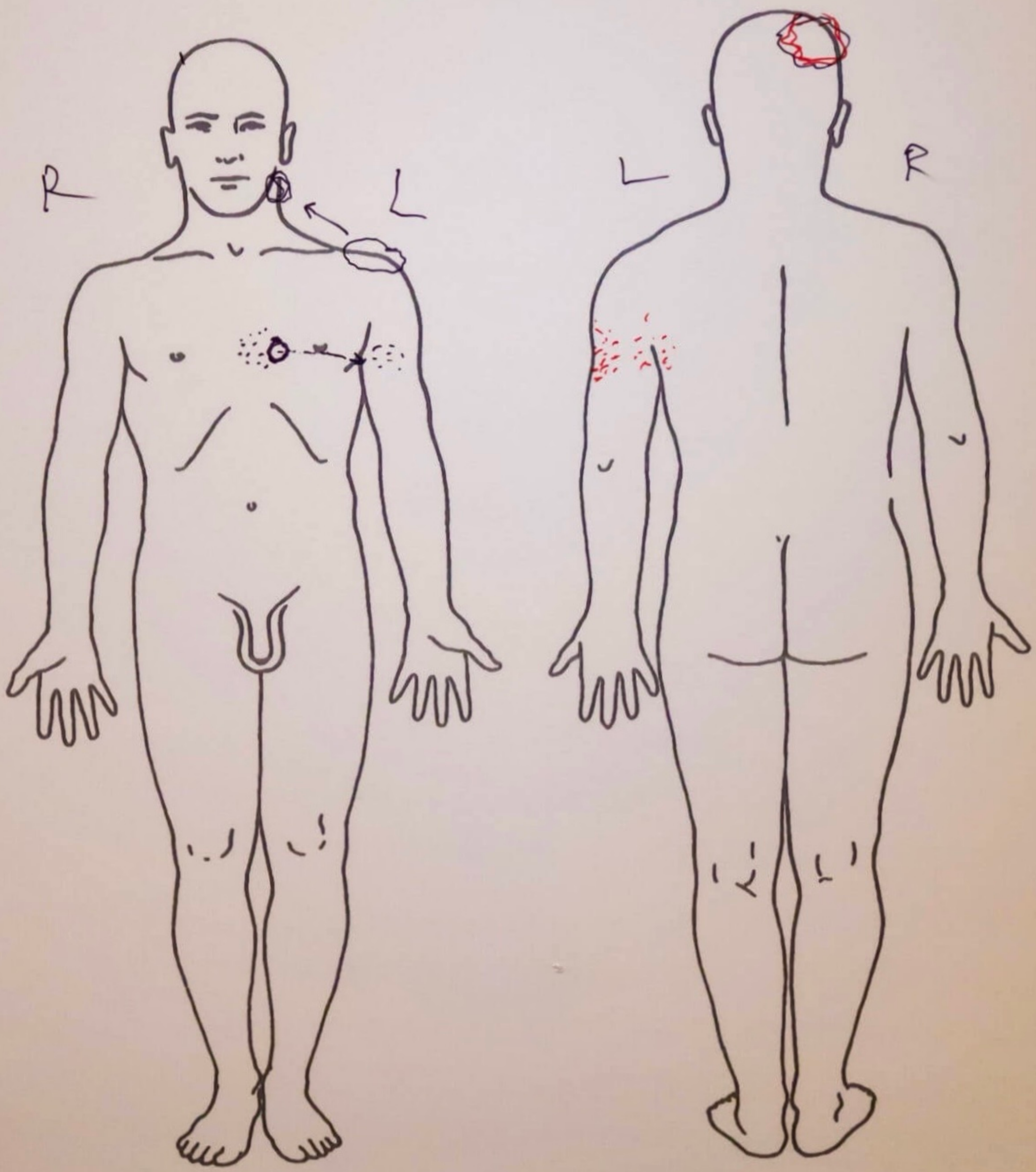
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Paul

Weight:
Length:
Temp:
Rigor:
Livor:
Scalp hair:
Facial hair:

Eyes:
Ears:
Nose:
Teeth:
Neck:
Abdomen:
Genitalia:





Department of Pathology and
Lab Medicine
165 Ashley Ave, Suite 309
MSC 908
Charleston, SC 29425

Patient: Murdaugh, Margaret
MRN:
DOB: 9/15/1968 Sex: Female

Colleton County Coroner

Forensic Autopsy Report (Final result)

Authorizing External Provider
Provider:
Pathologist: Ellen C. Riemer, MD JD

Specimens

A Postmortem exam

Date of Autopsy

6/10/2021

Date of Death

6/7/2021

Authorization

Mr. Richard Harvey, Colleton County Coroner

Injury

Subject was shot

At Work

No

Cause of Death

Multiple gunshot wounds

Maggie

Department of Pathology and Laboratory Medicine
Chair: Steven L. Carroll M.D., PhD.

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Fax: 843-792-8974	Fax: 843-792-3537	Fax: 843-792-4896	Fax: 843-792-4896

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DEFENDANT'S
EXHIBIT

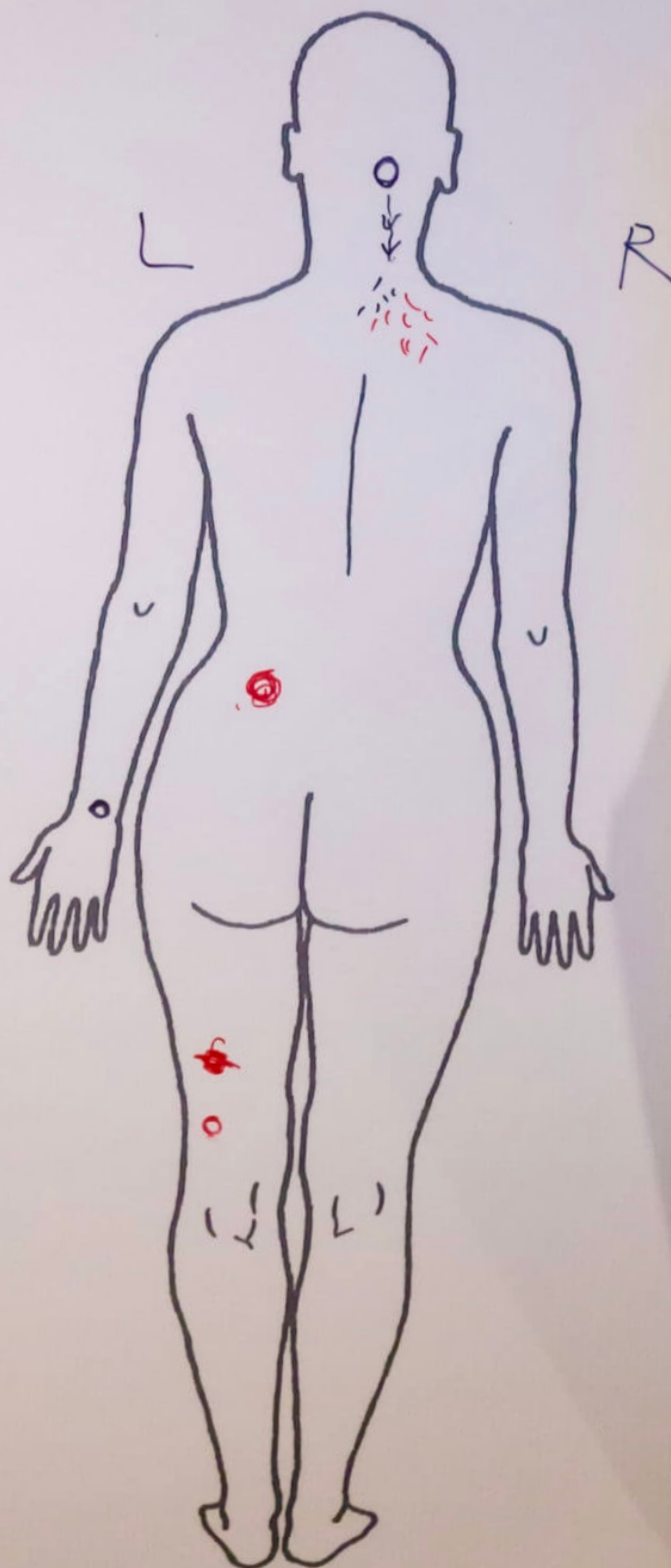
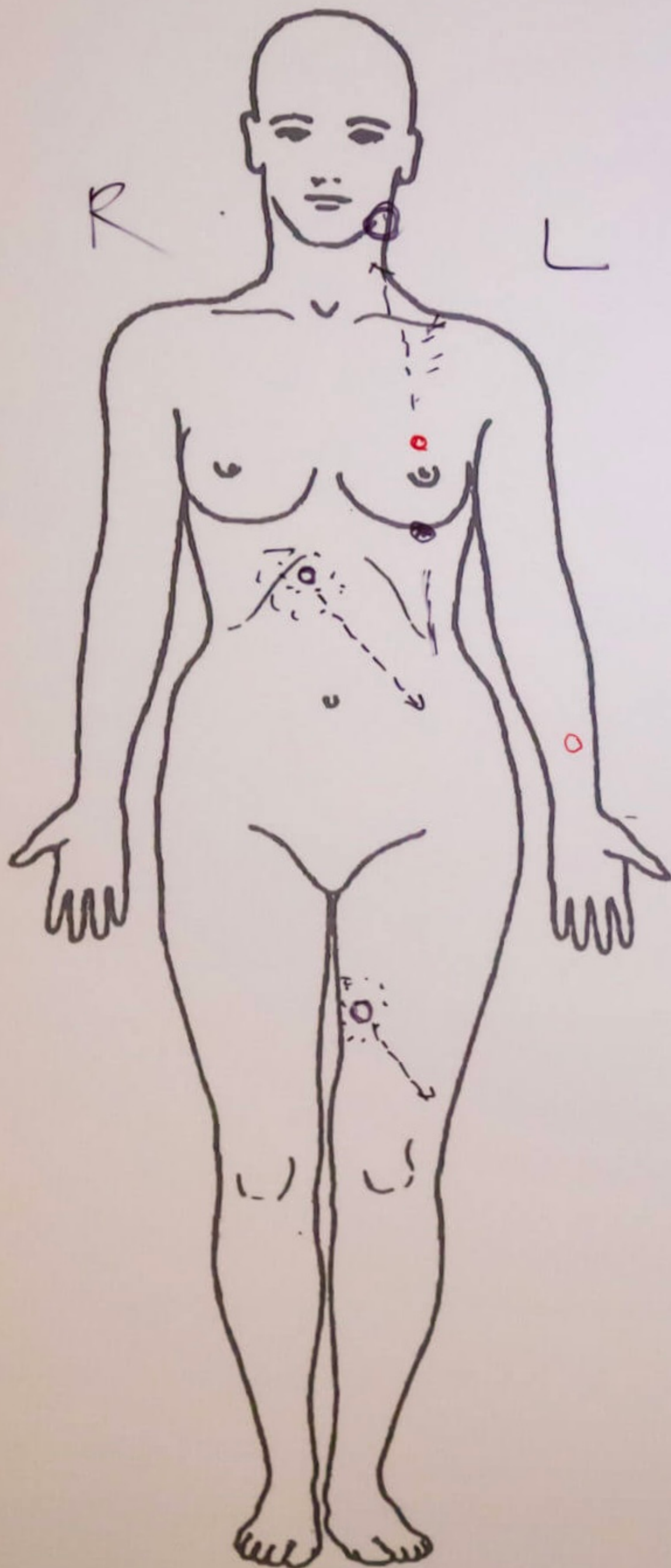
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2-27-23

Weight:
Length:
Temp:
Rigor:
Livor:
Scalp hair:
Hirsutism:

Eyes:
Ears: .
Nose:
Teeth:
Neck:
Abdomen:
Genitalia:

Maggie



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 Trainers¹" 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

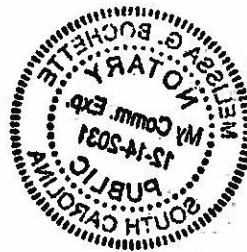
THUS, DONE and SIGNED before me, NOTARY PUBLIC, this 9 th day of January, 2023.


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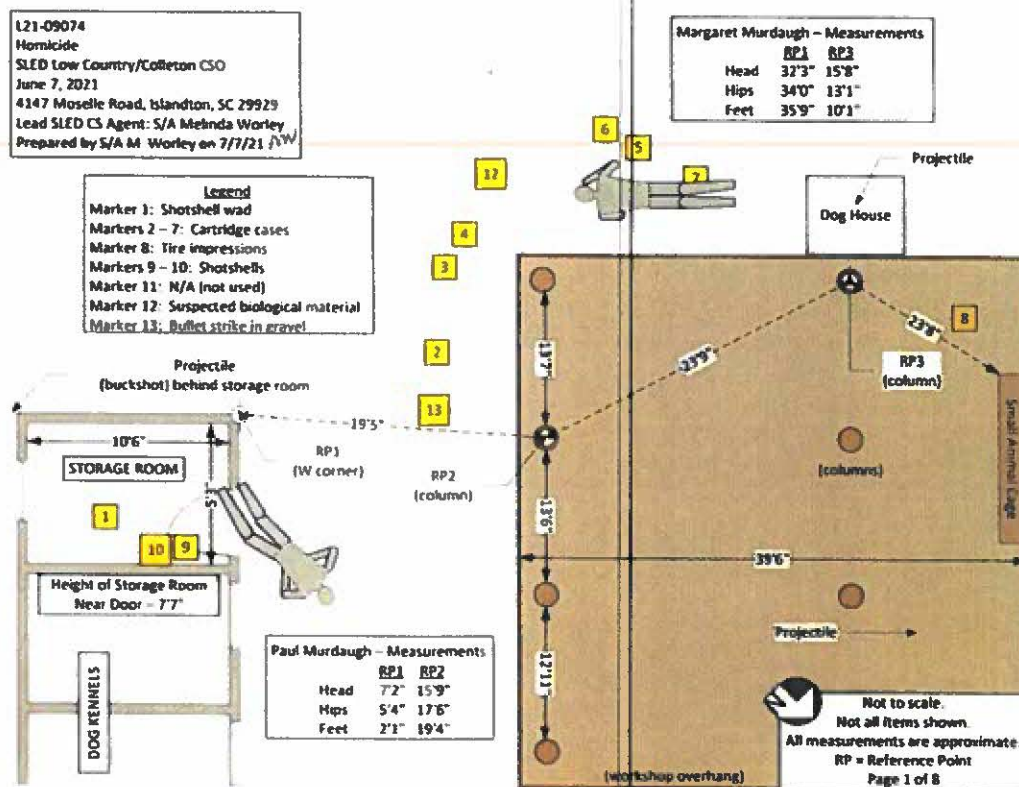

(Signed)

Notary Public South Carolina
My Commission Expires Dec. 14, 2031



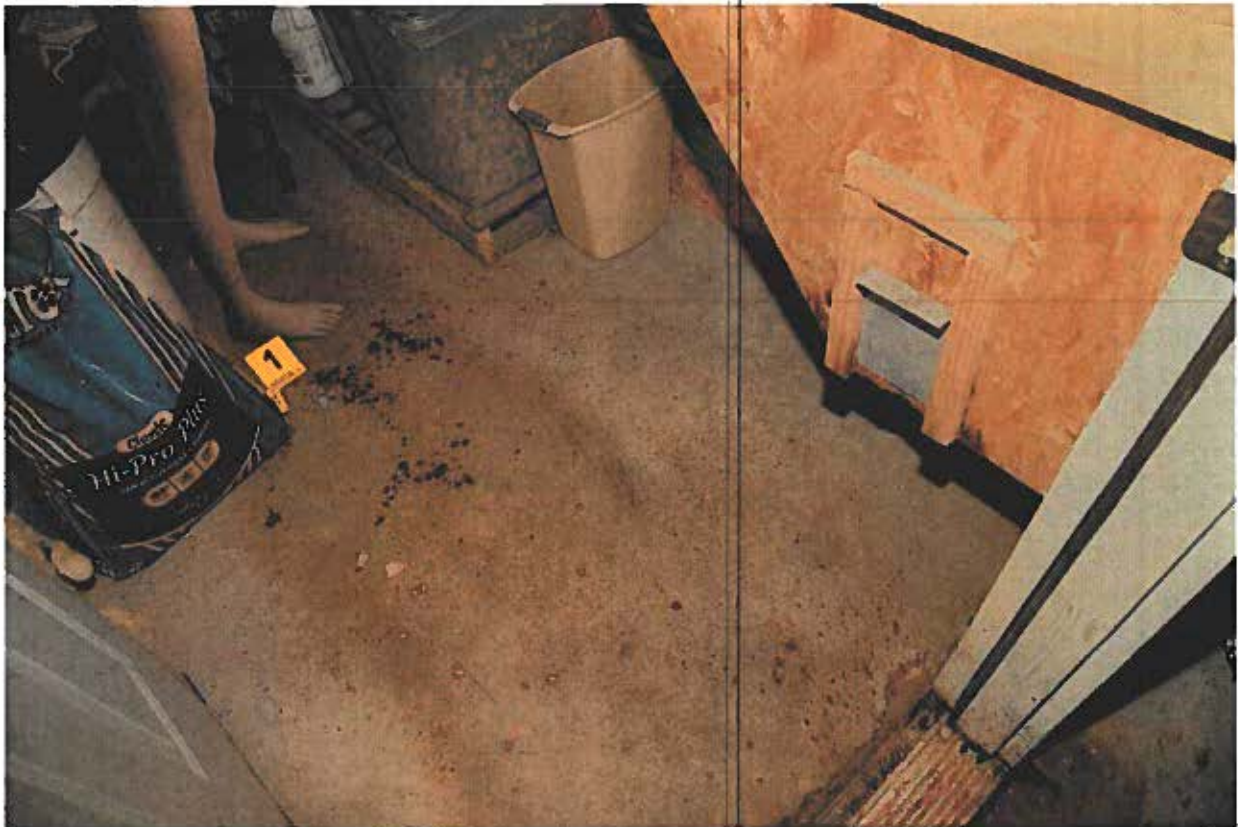


Attachment 1

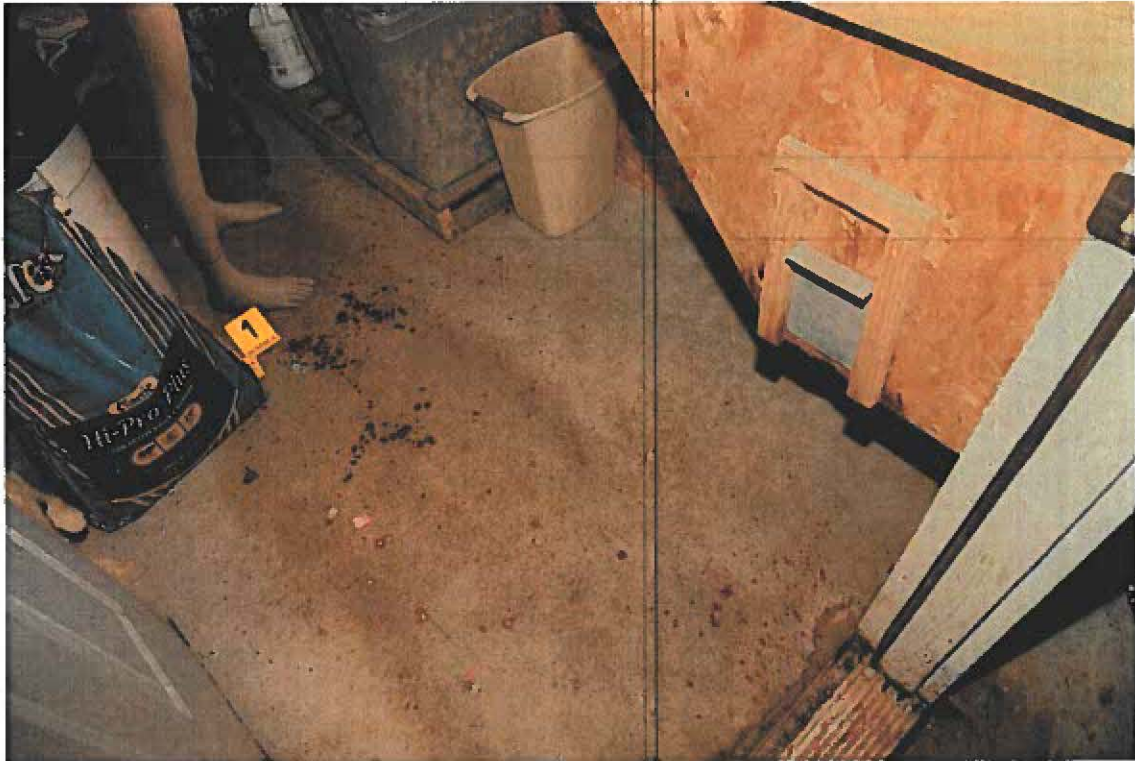


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Attachment 2



Attachment 5



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Attachment 6

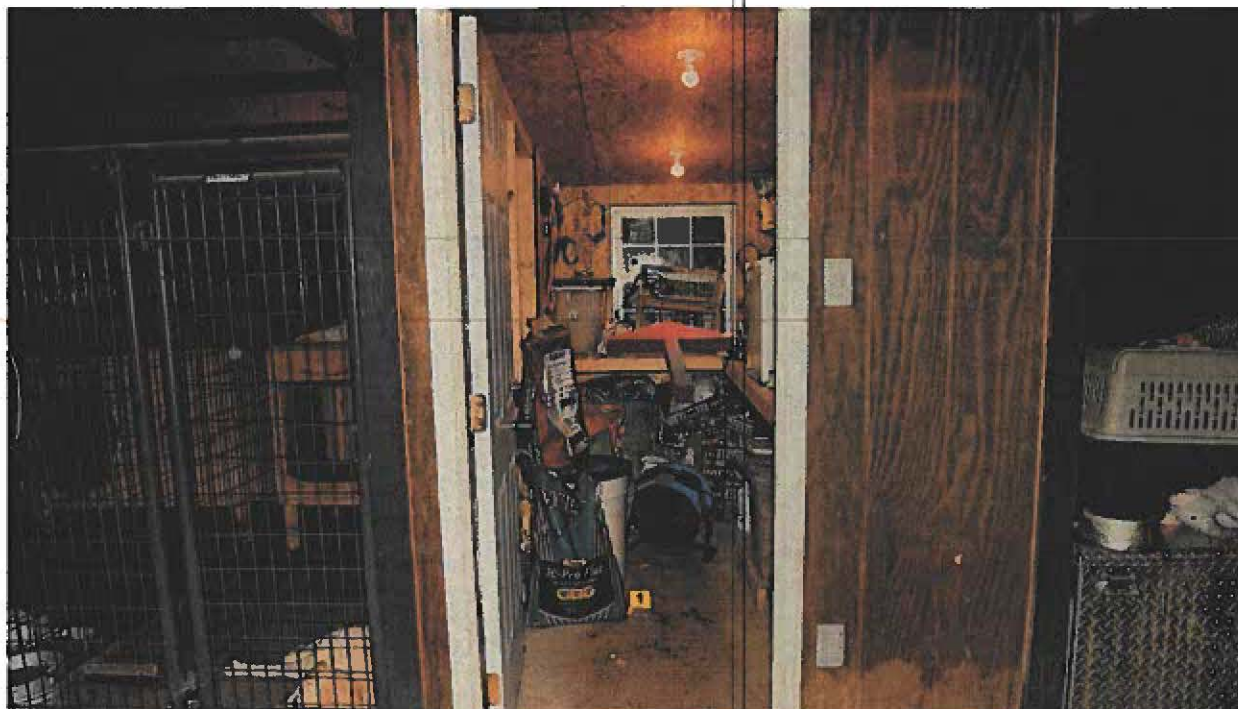


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Attachment 7

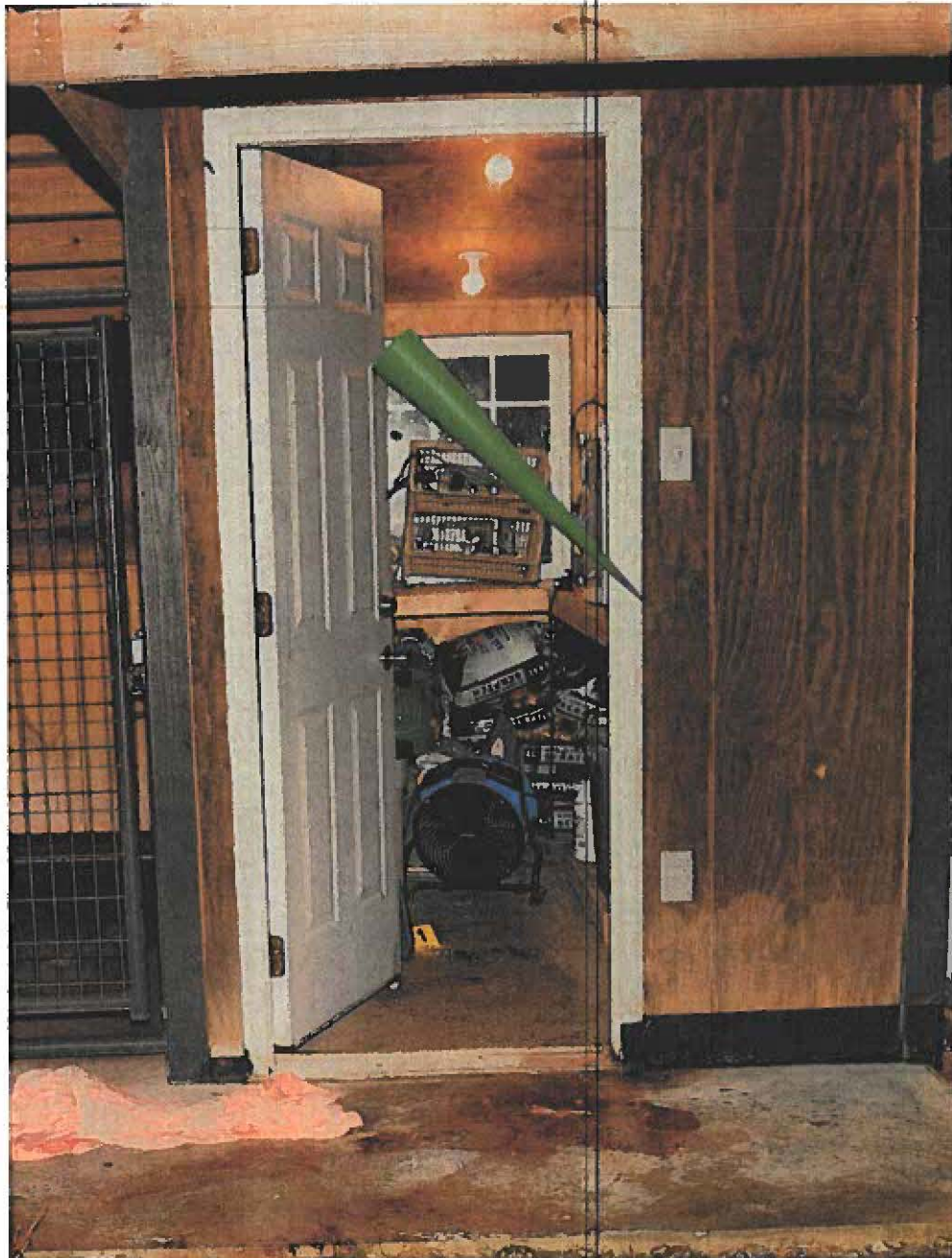


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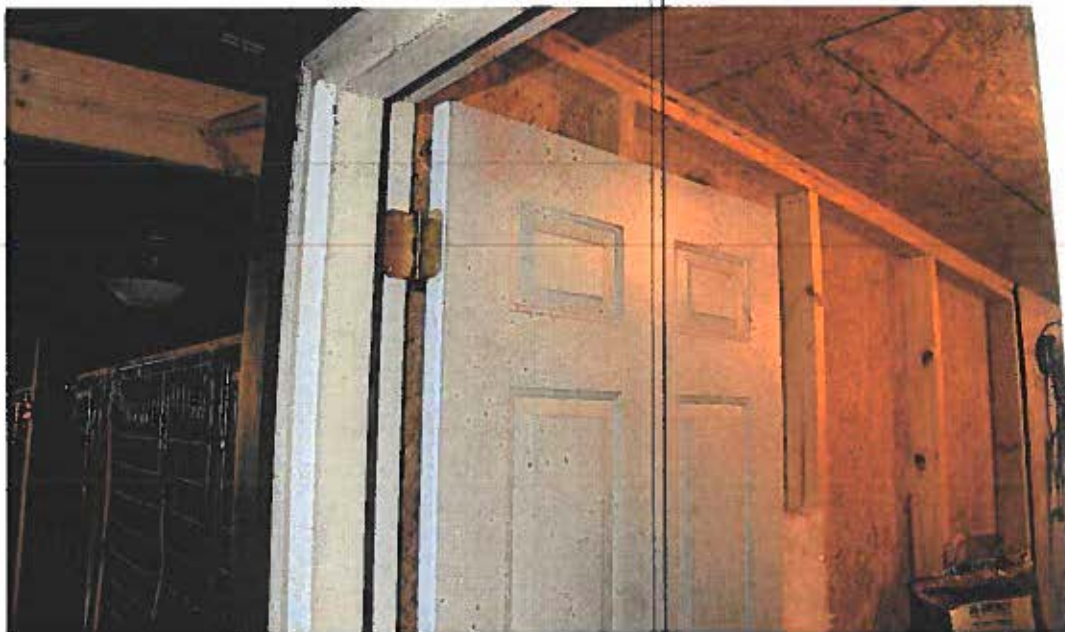


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Attachment 9



Attachment 10



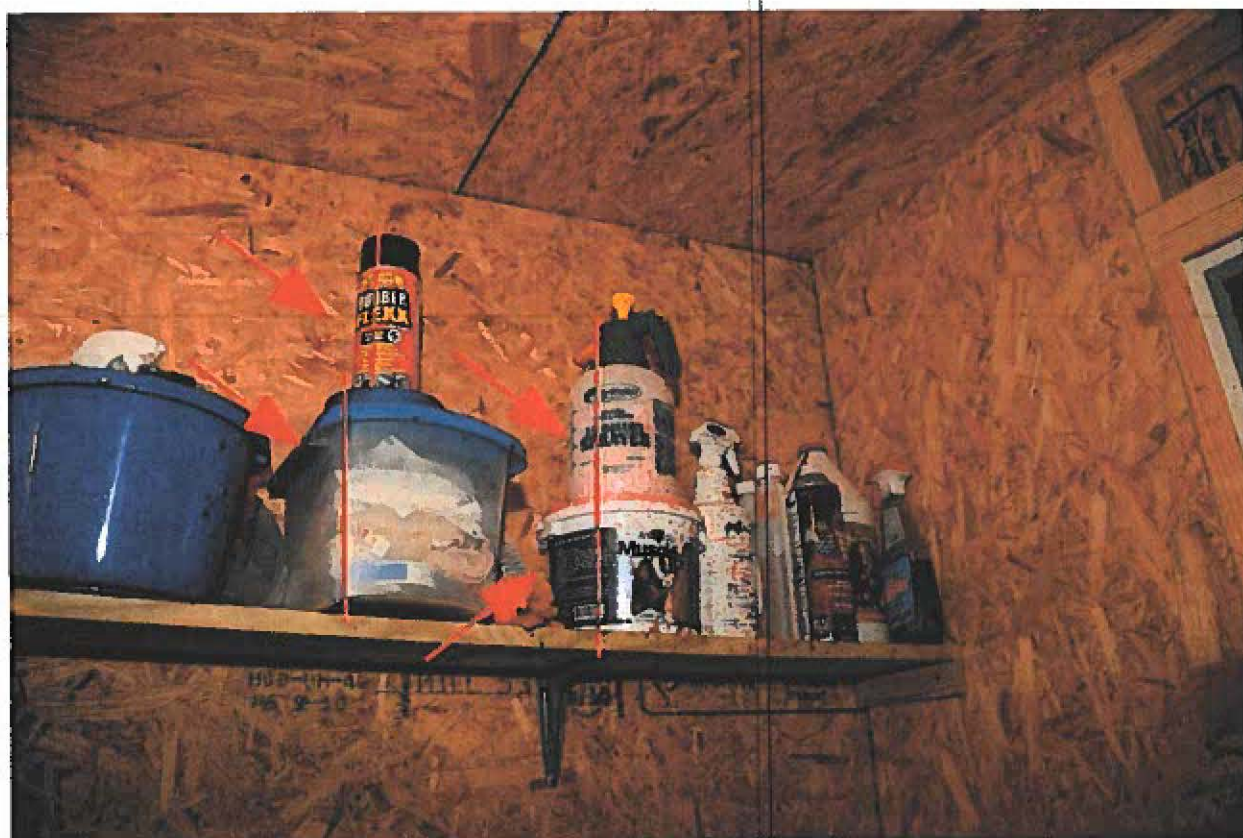
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Attachment 10 (cont.)



K

Attachment 11



JAN 18 2023 AM 11:02
COLLETON CO GS, REBECCA H. HILL

L