AUTOPSY REPORT

Case No. ML21-1742

April 18, 2021

ON THE BODY OF

Everette Talbot

CAUSE OF DEATH: Blunt force trauma of torso and extremities and

thermal injuries

MANNER OF DEATH: Accident

DATE OF DEATH: April 17, 2021

Paulyann Maclayton, M.D.

Forensic Pathology Fellow

Reviewed by:

Pramod Gumpeni, M.D.

Assistant Deputy Chief Examiner

POSTMORTEM EXAMINATION ON THE BODY OF

Everette Talbot

HISTORY: By report, this initially unknown 69-year-old White male was an occupant of a sedan that struck a tree and caught on fire at 18 Hammock Dunes Place, Spring, Harris County, Texas. The decedent was found in the front passenger seat. He was declared dead at 9:37 p.m. on April 17, 2021. He was subsequently positively identified by dental comparison as Everette Talbot. (See companion case ML21-1741.)

AUTOPSY: The autopsy is performed at the Harris County Institute of Forensic Sciences by Forensic Pathology Fellow Paulyann Maclayton, M.D., under the supervision of Assistant Deputy Chief Examiner Pramod Gumpeni, M.D., pursuant to Article 49.25, Texas Code of Criminal Procedure, beginning at 1:30 p.m. on April 18, 2021.

EXTERNAL APPEARANCE: The body is that of a severely charred adult male of unknown age at the time of examination. The body is clad in a left shoe, torn black socks around the legs, charred fragments of jeans on the left ankle, and charred fragments of a shirt on the thighs. Harris County morgue identification bands encircle the left wrist and right ankle. A Harris County morgue tracking device encircles the left ankle.

The body weighs 150 pounds and is 68 inches in length. The charring of soft tissue precludes the evaluation of rigor mortis, livor mortis, or facial features. The eyes cannot be assessed due to extensive thermal injury. The oral cavity contains natural dentition with extensive thermal changes. The neck is symmetrical. The external genitalia are consistent with those of an adult male.

IDENTIFYING MARKS AND SCARS: None are apparent.

EVIDENCE OF MEDICAL INTERVENTION: None.

EVIDENCE OF INJURY (THERMAL INJURIES): The body is severely charred. The soft tissues of the face, neck, chest, abdomen, upper and lower extremities, and back are consumed to the deep soft tissues and bone. The extremities have a pugilistic posture. Approximately 95 percent of the total body surface area is charred.



Everette Talbot ML21-1742 -3-

The skull has thermal fractures with exposure of the dura mater. Fragments of the skull are in a paper bag accompanying the body. The left side of the dura mater has a gaping defect with focal disruption and extrusion of the left parietal and temporal lobes. Congealed blood with thermal changes lines the subdural membrane and covers the medial convexities of the front and parietal lobes. Patchy punctate to purpuric hemorrhages are scattered throughout the white matter.

The neck structures are exposed. The larynx has a central defect with rolled edges and soot on the mucosa. A minimal amount of soot is in the trachea. The epiglottis and para-laryngeal soft tissue are erythematous. The thyroid gland is charred.

The ribs are partially exposed and have extensive thermal injuries. A large gaping defect is in the right fifth intercostal space with exposure of the right pleural cavity. The right middle lobe is focally charred. The left intercostal space has a smaller gaping defect. There is extrusion of the peritoneal organs through the lower abdominal wall. The small bowel has extensive thermal changes, including exposure of the small bowel mucosa in multiple areas. The testes have thermal changes.

The right wrist, left elbow, and right knee joints are disarticulated and have thermal fractures. The distal phalanges of the left fingers and right thumb and index finger are absent.

EVIDENCE OF INJURY (BLUNT FORCE INJURIES):

BLUNT FORCE TRAUMA OF THE TORSO: The right first through fourth ribs are fractured with surrounding soft tissue hemorrhage. The left first and third through eighth ribs are fractured with surrounding soft tissue hemorrhage. The epicardial soft tissue is contused and the pericardial sac is lacerated. The T1 and T2 vertebrae are completely separated with partial transection of the proximal descending aorta at this level. No transection of the spinal cord at this level is identified; however, there is associated mild epidural hemorrhage. The T12 vertebral body is fractured.

The liver has multiple lacerations with associated 100 milliliters of residual blood in the peritoneal cavity. Multifocal areas of the mesentery are contused.

BLUNT FORCE TRAUMA OF THE RIGHT LOWER EXTREMITY: The right femur, tibia, and fibula are fractured.

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Everette Talbot ML21-1742 -4-

These injuries, having been described once, will not be repeated.

INTERNAL EXAMINATION:

BODY CAVITIES: No adhesions are in the pericardial, pleural, or abdominal cavities. All internal organs are in their normal anatomic positions.

HEAD (CENTRAL NERVOUS SYSTEM): See EVIDENCE OF INJURY. There is no subdural or subarachnoid hemorrhage. The brain weighs 1090 grams and has a normal shape and gyral pattern. The uninjured cerebral hemispheres are symmetrical. The structures at the base of the brain, including the cranial nerves and blood vessels, are intact. The cerebral arterial vasculature has no atherosclerosis or aneurysms. Coronal sections through the uninjured cerebral hemispheres reveal no abnormalities of the cortical ribbon, subcortical white matter, or deep gray structures. The cerebral ventricles are symmetrical and of normal caliber. Transverse sections through the cerebellar hemispheres, brainstem, and upper cervical spinal cord reveal no abnormalities.

NECK: See EVIDENCE OF INJURY. The anterior neck muscles have no hemorrhage. The tongue mucosa is intact with no hemorrhage in the musculature. The hyoid bone and thyroid and cricoid cartilages are intact. The laryngeal mucosa is tan-pink and glistening. The epiglottis is thin with no edema. The atlanto-occipital articulation is stable. No cervical fractures are palpated.

CARDIOVASCULAR SYSTEM: The heart weighs 540 grams and has a smooth, glistening epicardial surface with an increased amount of epicardial fat. The coronary arteries have patent ostia and a right-dominant distribution. Yellow, eccentric atherosclerotic plaques produce up to 60 percent stenosis of the left anterior descending coronary artery and 50 percent stenoses of the right coronary and left circumflex coronary arteries. The myocardium is red-brown with no pallor, softening, or fibrosis. The atrial and ventricular septa are intact. The chambers of the heart are not dilated. The walls of the left ventricle, interventricular septum, and right ventricle are 1.0 centimeter, 1.2 centimeters, and 0.5 centimeter thick, respectively. The endocardial surfaces are smooth and without hemorrhage. The four cardiac valves are thin, freely mobile, and measure as follows: tricuspid valve 14 centimeters, pulmonic valve 7.5 centimeters, mitral valve 8.5 centimeters, and aortic valve 8.0 centimeters. The aorta and its major branches arise normally and have severe calcific atherosclerosis. The venae cavae and

Singlayla 61 their major tributaries return to the heart in their usual distribution and are free of thrombi.

RESPIRATORY SYSTEM: See EVIDENCE OF INJURY. The 500 gram right lung and 650 gram left lung have normal lobation. The pleural surfaces are smooth and glistening with minimal anthracotic pigment deposition. The red-purple parenchyma has dependent congestion with no masses, consolidation, or hemorrhage. The cut surfaces exude a moderate amount of foamy fluid. The right main bronchus contains tan-green gastric fluid. The pulmonary arterial vasculature has no thromboemboli or significant atherosclerosis.

HEPATOBILIARY SYSTEM: See EVIDENCE OF INJURY. The 1330 gram liver has a smooth, glistening capsule covering dark red-brown soft parenchyma with no visible or palpable fibrosis.

GASTROINTESTINAL SYSTEM: The esophagus is lined by tan-pink, smooth mucosa with focal mucosal erosion. A laparoscopic adjustable gastric band encircles the proximal stomach. The attached tubing terminates in the subcutaneous adipose tissue of the abdominal wall; however, the subcutaneous reservoir is not identified. The gastric mucosa exhibits the usual rugal folds, and the lumen contains 250 milliliters of tangreen fluid admixed with partially digested food. The uninjured small intestine, colon, and appendix are unremarkable. The pancreas has a pink-tan lobulated appearance, and the ducts are clear.

GENITOURINARY SYSTEM: The 140 gram right kidney and 190 gram left kidney have smooth, thin, and semitransparent capsules. The underlying cortical surfaces are coarsely granular and red-brown. The cortices are sharply delineated from the medullary pyramids, which are red-purple and unremarkable. The calyces, pelves, and ureters are unremarkable. The urinary bladder contains 3 milliliters of turbid yellow urine. The mucosa is pink-white and unremarkable. The testes and seminal vesicles are unremarkable. The prostate gland is not identified.

RETICULOENDOTHELIAL SYSTEM: The 150 gram spleen has a smooth, intact capsule covering dark red-purple soft parenchyma. The white pulp is unremarkable. The lymph nodes are not enlarged.



ENDOCRINE SYSTEM: See EVIDENCE OF INJURY. The thyroid gland has a normal shape and size. The parathyroid glands are inconspicuous. The adrenal glands have goldenyellow uniformly thin cortices and thin gray medullae.

MUSCULOSKELETAL SYSTEM: See EVIDENCE OF INJURY. The T7 and T10 vertebral bodies have prominent osteophytes. The uninjured vertebrae, clavicles, sternum, ribs, and pelvis are normally developed. The musculature is normally distributed. The diaphragm is intact.

RADIOGRAPHS: Anteroposterior and lateral radiographs are performed and show multiple skeletal fractures.

TOXICOLOGY: Blood, urine, bile, and liver are submitted to the HCIFS Toxicology Lab. Samples of brain, spleen, kidney, muscle, and lung are submitted to the Federal Aviation Administration Civil Aerospace Medical Institute (FAA CAMI) Toxicology Lab.

HISTOLOGY: The following sections are submitted: Cassette A - heart; cassette B right lung; cassette C - left lung; cassette D - liver and right kidney; cassette E - brain; cassette F - trachea and thoracic spinal cord.

PATHOLOGICAL FINDINGS

- I. Blunt force trauma of torso and extremities and thermal injuries
 - A. Circumstances: decedent was an occupant of a sedan that struck a tree and caught on fire; decedent found in front passenger seat
 - B. Blunt force trauma of the torso
 - 1. Partial transection of proximal descending aorta
 - 2. T1-T2 vertebral separation
 - 3. Thoracic spinal cord contusions
 - 4. T12 vertebral body fracture
 - 5. Liver lacerations
 - 6. Hemoperitoneum
 - 7. Multiple rib fractures
 - 8. Mesenteric hemorrhage
 - C. Blunt force trauma of the right lower extremity
 - 1. Right femur fracture

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- 2. Right tibia fracture
- 3. Right fibula fracture
- D. Thermal injuries
 - 1. Extensive charring and fourth-degree burns
 - a. 95 percent total body surface area
 - 2. Thermal injuries of the brain
 - 3. Thermal contracture of the upper and lower extremities
 - 4. Extensive skeletal thermal fractures
 - 5. Thermal injuries of viscera
- II. Postmortem toxicology
 - A. Carboxyhemoglobin saturation:
 - 1. Not detected in postmortem blood (FAA CAMI Toxicology Report)
 - 2. Less than 5 percent detected in postmortem blood; see TOXICOLOGY REPORT
 - B. Cyanide (0.44 mcg/mL) detected in postmortem blood; see NMS TOXICOLOGY REPORT
 - C. Ethanol:
 - 1. Ethanol detected in postmortem blood and liver (FAA CAMI Toxicology Report)
 - 2. Ethanol detected in postmortem blood (0.075 g/100mL) and urine (0.115 g/100mL); see TOXICOLOGY REPORT
 - D. Diphenhydramine:
 - 1. Diphenhydramine detected in postmortem blood and liver (FAA CAMI Toxicology Report)
 - 2. Diphenhydramine (0.12 mg/L) detected in postmortem blood; see TOXICOLOGY REPORT
 - E. Sildenafil and metabolite detected in postmortem blood and liver (FAA CAMI Toxicology Report)
- III. Hypertensive and atherosclerotic cardiovascular disease
 - A. Cardiomegaly (540 grams) with myocyte hypertrophy and myocardial fibrosis
 - B. Moderate three-vessel coronary calcific atherosclerosis
 - C. Severe aortic atherosclerosis
 - D. Nephroarteriosclerosis

HARRIS COUNTY INSTITUTE OF FORENSIC SCIENCES 1861 OLD SPANISH TRAIL HOUSTON, TEXAS 77054

Paulyann Maclayton, M.D. Forensic Pathology Fellow

ML21-1742

MICROSCOPIC EXAMINATION

6 H&E-stained slides are reviewed.

HEART - Marked myocyte hypertrophy; perivascular and focal interstitial fibrosis

LUNGS - Focal amorphous eosinophilic material in alveolar spaces with thermal artifact (both lungs); intra-alveolar hemorrhage (left lung); mild peribronchial anthracotic pigment deposition

LIVER - Minimal macrovesicular steatosis; no increased fibrosis or inflammation

RIGHT KIDNEY - Frequent sclerotic glomeruli; marked arterio- and arteriolosclerosis; focal interstitial fibrosis with tubular atrophy

THORACIC SPINAL CORD - Focal parenchymal hemorrhage

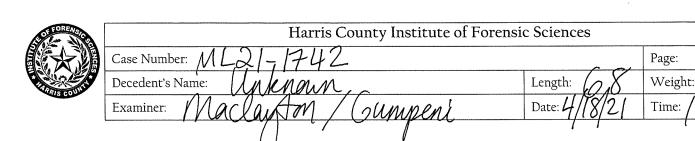
TRACHEA - Thermal artifact; no apparent soot on mucosal surface

BRAIN - Thermal artifact of arachnoid mater; focal parenchymal hemorrhages

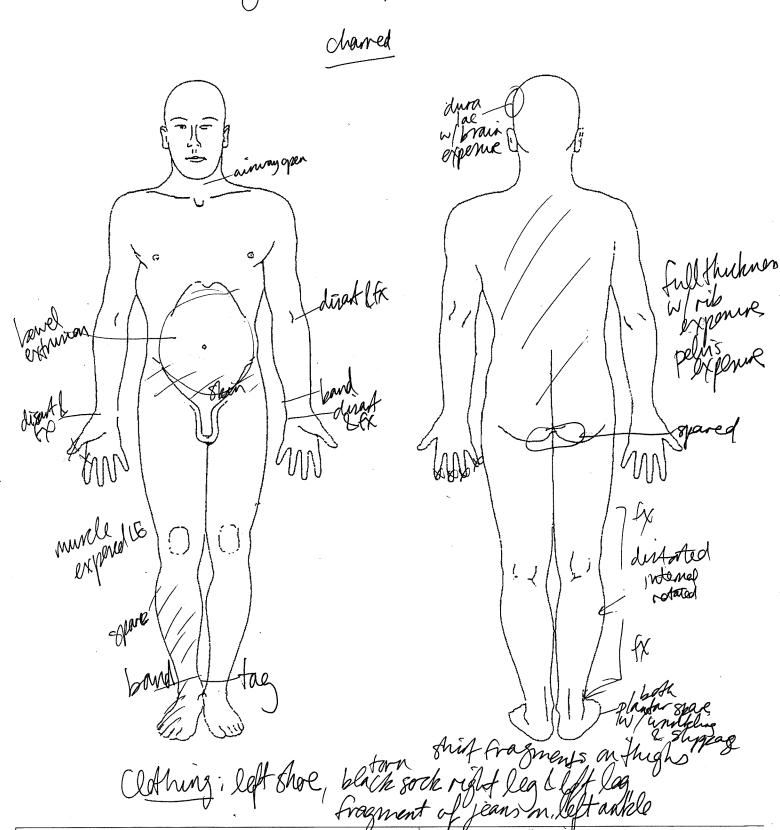
Paulyarin Maclayton, M.D.

Forensic Pathology Fellow

MMDDYY



of



Section: Pathology

Form Title: Autopsy Diagram – Adult Male, Front/ Back

Rev.:

Authorized by: DA Wolf

Form No.: PAT.001 Rev. date: 11/5/13

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Case Number: M2	1742 Decedent's Name:	Unknown /	
Examiner: V A Claus	m/Gumpeni	Date: 4/18/2 Page: 1	2 of 2
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Section: Pathology	Authorized by: DA Wolf
Form Title: Autopsy Diagram - skeleton, front and back	Form No.: PAT.023
Rev.:	Rev. date: 11/5/13

HARRIS COUNTY INSTITUTE OF FORENSIC SCIENCES

1861 Old Spanish Trail Houston, TX 77054-2001

Phone: 832-927-5005 FAX: 832-927-2876

TOXICOLOGY REPORT

June 09, 2021

LABORATORY NUMBER: ML21-1742

SERVICE REQUEST: 0001



Submission Date: April 18, 2021

Deceased: EVERETTE TALBOT

Submitted By:

Paulyann Maclayton, M.D. Forensic Pathology Fellow Harris County Institute of Forensic Sciences 1861 Old Spanish Trail Houston, TX 77054

RESULTS:

001-A - Blood (femoral)

<u>Analyte</u>	Result	Analytical Method	<u>Analyst</u>
Ethanol	$0.075 \pm 0.012 \text{ g/}100\text{mL}$	Headspace GC/FID	C. Mendralla
Diphenhydramine	$0.12 \pm 0.03 \text{ mg/L}$	LC/MS/MS	J. Sailors

001-B - Blood (heart)

Analyte	Result	Analytical Method	<u>Analyst</u>
Carboxyhemoglobin	Less than 5% saturation	Spectrophotometry	J. Sandoval
Diphenhydramine	Present	GC/MS	K. Cooper

001-F - Urine

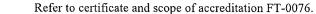
<u>Analyte</u>	<u>Result</u>	Analytical Method	<u>Analyst</u>	
Ethanol	$0.115 \pm 0.018 \text{ g/}100\text{mL}$	Headspace GC/FID	L. Leon	

001-A - Blood (femoral)

<u>Analyte</u>	<u>Result</u>	Analytical Method	<u>Analyst</u>
Acetone	None Detected	Headspace GC/FID	C. Mendralla
Isopropanol	None Detected	Headspace GC/FID	C. Mendralla
Methanol	None Detected	Headspace GC/FID	C. Mendralla
Buspirone	None Detected	LC/MS/MS	J. Sailors
Trazodone	None Detected	LC/MS/MS	J. Sailors

Medical Examiner's Initials and Date PM

All testing is accredited by the Texas Forensic Science Commission and by the laboratory's ISO/IEC 17025 and American Board of Forensic Toxicology accreditation issued by the ANSI National Accreditation Board.





LABORATORY NUMBER: ML21-1742 SERVICE REQUEST: 0001

DATE: June 9, 2021

001-B - Blood (heart)

Result	Analytical Method	Analyst
None Detected	Immunoassay - ELISA	B. Harrell
None Detected	Immunoassay - ELISA	B. Harrell
None Detected	Immunoassay - ELISA	B. Harrell
None Detected	Immunoassay - ELISA	B. Harrell
None Detected	Immunoassay - ELISA	B. Harrell
None Detected	Immunoassay - ELISA	B. Harrell
None Detected	Immunoassay - ELISA	B. Harrell
None Detected	Immunoassay - ELISA	B. Harrell
None Detected	Immunoassay - ELISA	B. Harrell
None Detected	Immunoassay - ELISA	B. Harrell
None Detected	GC/MS	K. Cooper
	None Detected	None Detected Immunoassay - ELISA

001-F - Urine

<u>Analyte</u>	Result	Analytical Method	Analyst
Acetone	None Detected	Headspace GC/FID	L. Leon
Isopropanol	None Detected	Headspace GC/FID	L. Leon
Methanol	None Detected	Headspace GC/FID	L. Leon

<u>Uncertainty of Measurement:</u> The uncertainty value for ethanol represents an expanded uncertainty expressed at the 99.73% level of confidence. The uncertainty values for all other analytes represent an expanded uncertainty expressed at the 95.45% level of confidence.

Only those items listed in the results section were tested.

OUTSOURCED TESTING

Blood (heart) was sent to NMS Labs on 04/22/21 for cyanide analysis.

The results will be delivered directly to the case pathologist.

Evidence Disposition: All items will be retained by the laboratory for at least one year following the issuance of an original Toxicology Report.

INSTITUTE OF FORENSIC SCIENCES

JUN 1 0 2021

RECEIVED RECORDS CUSTODIAN

Linda Alvarado, B.S., C(ASCP), D-ABFT-FT

Case Reviewer

Toxicologist 2 / Specialist

June 07, 2021

Teresa Gray, Ph.D., F-ABFT

Expert Reviewer

Director, Forensic Toxicology

June 09, 2021

Medical Examiner's Initials and Date

All testing is accredited by the Texas Forensic Science Commission and by the laboratory's ISO/IEC 17025 and American
Board of Forensic Toxicology accreditation issued by the ANSI National Accreditation Board.

Refer to certificate and scope of accreditation FT-0076.

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NMS Labs

200 Welsh Road, Horsham, PA 19044-2208 Phone: (215) 657-4900 Fax: (215) 657-2972 e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Toxicology Report

Report Issued 04/30/2021 12:26

To: 98574

Harris County Institute of Forensic Sciences

Attn: Toxicology Department 1861 Old Spanish Trail Houston, TX 77054 **Patient Name**

UNKNOWN, UNKNOWN

Patient ID ML21-1742 Chain 21138491

Age Not Given DOB Not Given

Gender Workorder Male 21138491

Page 1 of 2

Positive Findings:

Compound	Result	<u>Units</u>	Matrix Source	
Cyanide	0.44	mcg/mL	001 - Heart Blood	

See Detailed Findings section for additional information

Testing Requested:

Analysis Code	Description	
1380B	Cyanide, Blood	

Specimens Received:

ID	Tube/Container	Volume/ Mass	Collection Date/Time	Matrix Source	Labeled As	
001	Red Top Tube	0.75 mL	Not Given	Heart Blood	ML21-1742	

All sample volumes/weights are approximations.

Specimens received on 04/23/2021.



CONFIDENTIAL

 Workorder
 21138491

 Chain
 21138491

 Patient ID
 ML21-1742

Page 2 of 2

Detailed Findings:

Analysis and Comments	Result	Units	Limit	Specimen Source	Analysis By	
Cyanide	0.44	mcg/mL	0.050	001 - Heart Blood	LC-MS/MS	

Other than the above findings, examination of the specimen(s) submitted did not reveal any positive findings of toxicological significance by procedures outlined in the accompanying Analysis Summary.

Reference Comments:

1. Cyanide (CN; Hydrogen Cyanide; Potassium Cyanide) - Heart Blood:

Cyanide is a potent, rapidly acting lethal poison. Common sources include industrial manufacturing by-products, plants, fruit pits, chemicals and combustion products of certain plastics. Because of the latter, cyanide may play a role in the hypoxic events from fires. Its toxic effects are exerted via inhibition of aerobic metabolism, i.e., an inability to effectively use oxygen.

Endogenous whole blood cyanide concentrations for non-smokers are reported to approximate 0.02 mcg/mL. In smokers, blood concentrations may increase to 0.04 mcg/mL. Individuals on nitroprusside therapy for high blood pressure may also have elevated levels of cyanide (0.05 - 0.5 mcg/mL).

Blood concentrations of cyanide can increase or decrease during storage depending on the length of time, the temperature and the presence of cyanogenic bacteria (bacteria that form cyanide as a by-product of metabolism).

In general, individuals with blood cyanide levels lower than 0.2 mcg/mL are asymptomatic; between 0.5 and 1.0 mcg/mL, signs of toxicity may be noted, e.g., flushing and tachycardia. At higher concentrations (1.0 - 2.5 mcg/mL) stupor and coma may appear with death at concentrations exceeding 2.5 mcg/mL.

Concentrations found in fire victims ranged from 0.17 - 2.2 mcg/mL. Average concentrations reported in two studies of 49 fatal cases ranged from 0.4 - 230 mcg/mL (average 38 mcg/mL).

Chain of custody documentation has been maintained for the analyses performed by NMS Labs.

Unless alternate arrangements are made by you, the remainder of the submitted specimens will be discarded six (6) weeks from the date of this report; and generated data will be discarded five (5) years from the date the analyses were performed.

Analysis Summary and Reporting Limits:

All of the following tests were performed for this case. For each test, the compounds listed were included in the scope. The Reporting Limit listed for each compound represents the lowest concentration of the compound that will be reported as being positive. If the compound is listed as None Detected, it is not present above the Reporting Limit. Please refer to the Positive Findings section of the report for those compounds that were identified as being present.

Acode 1380B - Cyanide, Blood - Heart Blood

-Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS) for:

<u>Compound</u> <u>Rpt. Limit</u>
Cyanide 0.050 mcg/mL

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Compound

APR 3 0 2021

RECEIVED MW

RM 4/30/21

NMS v.21.0

Rpt. Limit