

FORENSIC TOXICOLOGY REPORT



FAA Civil Aerospace Medical Institute
Bioaeronautical Sciences Research Branch, Forensic Sciences
[REDACTED], Oklahoma City, Oklahoma 73125
[REDACTED]



October 25, 2019

NAME [REDACTED]

CAMI # 201900210001

NTSB # CEN19FA323

LOCATION London, OH

MODE Aviation

N # 5438U

DATE OF ACCIDENT 9/18/2019

DATE RECEIVED 9/20/2019

STATUS FATAL

SPECIMENS Bile, Blood, Blood (Cavity), Brain, Heart, Kidney, Liver, Lung, Muscle, Spleen, Vitreous

PUTREFACTION No

Screening tests employed

Blood (Cavity) - Carboxyhemoglobin (UV/VIS)
Blood (Cavity) - Volatiles (HS GC/FID)
Blood (Cavity) - General drug screen (LC/MS, GC/MS)
Vitreous - Glucose (Chemical Analyzer)
Blood (Cavity) - Drugs of abuse (Immunoassay)

<u>Analyte</u>	<u>Result</u>	<u>Specimen</u>	<u>Instrument</u>
Carboxyhemoglobin	Not Detected	Blood (Cavity)	UV SPECT
Ethanol	Not Detected	Blood (Cavity)	HSGC/FID
Glucose	55 (mg/dL)	Vitreous	Analyzer
Metoprolol	Detected	Blood (Cavity)	LC/MS
Metoprolol	Detected	Liver	LC/MS
Amlodipine	Detected	Blood (Cavity)	LC/MS
Amlodipine	Detected	Liver	LC/MS
Benazepril	Detected	Blood (Cavity)	LC/MS
Benazepril	Not Detected	Liver	LC/MS

[REDACTED]
c=US, o=U.S. Government, ou=AMC, ou=AMC,
cn=RUSSELL J LEWIS
2019.10.29 09:50:51 -05'00'

Russell Lewis, Ph.D., F-ABFT
Supervisor, Forensic Sciences
Bioaeronautical Sci. Research Lab
CAMI, FAA

This record may be releasable under the FOIA request 15 days after signature date, unless FOIA exemptions apply.
Results listed in this report relate to tested specimen(s) only. See Forensic Toxicology web site for testing methodology and cutoffs as well as drug, FOIA, and contact information.
[REDACTED]



Montgomery County Coroner's Office
[REDACTED], Dayton, Ohio 45402
Kent E. Harshbarger, M.D., J.D., M.B.A., Coroner

LABORATORY REPORT

TO: Dr. Bryan Casto

Request Started: 9/20/19

Coroner Case Number: **19-4466**

Request Completed: 10/8/19

Decedent: [REDACTED]

Toxicology Case Number: 19-007774

Submitted Evidence

Submission 001: Fluids taken from morgue refrigerator.

- 001a:** Heart blood (grey)
- 001b:** Cavity blood (grey)
- 001c:** Cavity blood (purple)
- 001d:** Urine
- 001e:** Vitreous
- 001f:** Cavity blood (red)

Toxicology Service Requested: B Service

Presumptive Drug Screen Results

Drug or Drug Screen	Result	Test Method
Results for: Heart blood (grey)		
Volatiles Screen	Not Detected	GC-Headspace
General Unknown Drug Screen	Not Detected	GC/MS
Drugs of Abuse Screen	Not Detected	LC/MS/MS

Confirmation Results

Analyte Name	Concentration	Specimen Type	Method
VP			
Chloride	125 mmol/L	Vitreous	i-STAT
Creatinine	1.9 mg/dL	Vitreous	i-STAT
Glucose	46 mg/dL	Vitreous	i-STAT
Potassium	> 9.0 mmol/L	Vitreous	i-STAT
Sodium	140 mmol/L	Vitreous	i-STAT
Urea Nitrogen	33 mg/dL	Vitreous	i-STAT
Others			
Carbon Monoxide	< 5 %COHb	Cavity blood (purple)	CO-Oximeter

A Service: Consists of screening tests for volatiles by headspace GC (ethanol, methanol, acetone, and isopropanol) and drugs by LCMSMS for 7-aminoclonazepam, alprazolam, amphetamine, benzoylecgonine, buprenorphine, carboxy-THC, fentanyl, hydrocodone, hydromorphone, loperamide, lorazepam, MDA, methadone,

methamphetamine, midazolam, morphine, naloxone, naltrexone, nordiazepam, oxazepam, oxycodone, oxymorphone, PCP, temazepam, acetylfentanyl, carfentanil, tetrahydrofuran fentanyl, methoxyacetyl fentanyl, benzyl fentanyl, iso/butyryl fentanyl, and iso/valeryl fentanyl. Confirmations and quantitations are performed on positive screens when appropriate.

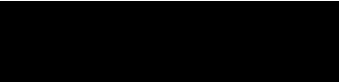
B Service: Consists of an **A Service** and a general screen for drugs and other substances by GC/MS. Confirmation and quantitation are performed on positive screens when appropriate.

Specific tests are also performed as appropriate.

Any analyte on this report with a result including the symbol < is positive, but below the limit of quantitation. Drug screen positives without confirmatory testing and/or drugs identified as "Presumptive I.D." have not been confirmed. A result of "not detected" indicates that the drug or class of drugs was not present at a level greater than the limit of detection for the test/instrument. Samples found to be "unsuitable for analysis" possess properties that inhibit or prevent the sample from being analyzed successfully for a drug or class of drugs.

Estimations of the measurement uncertainty appearing on this report are at a 95.45% coverage probability. Estimations of the measurement uncertainty for all other quantitative values on this report are available upon request.

Respectfully,



Heather Antonides
Forensic Toxicologist