



U.S. Department
of Transportation
**Federal Aviation
Administration**

Mike Monroney
Aeronautical Center

P.O. Box 25082
Oklahoma City, Oklahoma 73125

Thursday, August 22, 2019

National Transportation Safety Board
45065 Riverside Parkway
Ashburn, VA 20147

ACCIDENT #	0169	INDIVIDUAL#:	001	NAME:	UID Sumter 1 2019-4003270	MODE:	AVIATION
DATE OF ACCIDENT	07/24/2019			DATE RECEIVED	08/08/2019	PUTREFACTION:	Yes
	N # 921CD			NTSB #	ERA19FA234	CAMI REF #	201900169001
LOCATION OF ACCIDENT	Americus, GA						
SPECIMENS	Muscle						

FINAL FORENSIC TOXICOLOGY FATAL ACCIDENT REPORT

CARBON MONOXIDE: The carboxyhemoglobin (COHb) saturation is determined by spectrophotometry with a 10% cut off and confirmed by chromatography.

- NOT PERFORMED

CYANIDE: The presence of cyanide is screened by Conway Diffusion, when the COHb level is equal to or greater than 10% or upon special request. Cyanides are quantitated by spectrophotometry and confirmed by chromatography. The reporting cutoff for cyanide is 0.25 ug/mL. Normal blood cyanide concentrations are less than 0.15 ug/mL, while lethal concentrations are greater than 3 ug/mL.

- NOT PERFORMED

VOLATILES: The volatile concentrations are determined by headspace gas chromatography at a cut off of 10 mg/dL. Where possible, positive ethanol values are confirmed by Radiative Energy Attenuation.

- 94 (mg/dL, mg/hg) Ethanol detected in Muscle
- Propanol (N-) detected in Muscle

DRUGS: Specimens are analyzed using immunoassay, chromatography, mass spectrometry, or spectrophotometry. Concentrations (ug/mL) at or above those in () can be determined for, but not limited to, the following drugs: amphetamines (0.010), opiates (0.010), marihuana (0.001), cocaine (0.020), phencyclidine (0.002), benzodiazepines (0.030), barbiturates (0.060), antidepressants (0.100), and antihistamines (0.020). Drugs and/or their metabolites, that are not impairing or abused, may be reported from the initial tests. See the CAMI Drug Information Web Site for additional information (<http://jaq.cami.jccbi.gov/toxicology/>).

- NO DRUGS listed above detected in Muscle

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



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ACCIDENT #	0169	INDIVIDUAL#:	002	NAME:	UID Sumter 2 2019-4003271	MODE:	AVIATION
DATE OF ACCIDENT	07/24/2019			DATE RECEIVED	08/08/2019	PUTREFACTION:	Yes
	N # 921CD			NTSB #	ERA19FA234	CAMI REF #	201900169002
LOCATION OF ACCIDENT	Americus, GA						
SPECIMENS	Lung, Muscle						

FINAL FORENSIC TOXICOLOGY FATAL ACCIDENT REPORT

CARBON MONOXIDE: The carboxyhemoglobin (COHb) saturation is determined by spectrophotometry with a 10% cut off and confirmed by chromatography.

- NOT PERFORMED

CYANIDE: The presence of cyanide is screened by Conway Diffusion, when the COHb level is equal to or greater than 10% or upon special request. Cyanides are quantitated by spectrophotometry and confirmed by chromatography. The reporting cutoff for cyanide is 0.25 ug/mL. Normal blood cyanide concentrations are less than 0.15 ug/mL, while lethal concentrations are greater than 3 ug/mL.

- NOT PERFORMED

VOLATILES: The volatile concentrations are determined by headspace gas chromatography at a cut off of 10 mg/dL. Where possible, positive ethanol values are confirmed by Radiative Energy Attenuation.

- 24 (mg/dL, mg/hg) Ethanol detected in Lung
- 64 (mg/dL, mg/hg) Ethanol detected in Muscle
- Propanol (N-) detected in Muscle
- N-Butanol detected in Muscle

DRUGS: Specimens are analyzed using immunoassay, chromatography, mass spectrometry, or spectrophotometry. Concentrations (ug/mL) at or above those in () can be determined for, but not limited to, the following drugs: amphetamines (0.010), opiates (0.010), marihuana (0.001), cocaine (0.020), phencyclidine (0.002), benzodiazepines (0.030), barbiturates (0.060), antidepressants (0.100), and antihistamines (0.020). Drugs and/or their metabolites, that are not impairing or abused, may be reported from the initial tests. See the CAMI Drug Information Web Site for additional information (<http://jag.cami.jccbi.gov/toxicology/>).

- NO DRUGS listed above detected in Muscle

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