



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

Mike Monroney  
Aeronautical Center

P.O. Box 25082  
Oklahoma City, Oklahoma 73125

Wednesday, November 18, 2015

National Transportation Safety Board  
4760 Oakland Street, Suite 500  
Denver, CO 80239

**ACCIDENT #** 0243    **INDIVIDUAL#:** 001    **NAME:** BATES, BENJAMIN J.    **MODE:** AVIATION  
**DATE OF ACCIDENT** 10/13/2015    **DATE RECEIVED** 10/20/2015    **PUTREFACTION:** No  
    **N #** 394CW    **NTSB #** CEN16FA011    **CAMI REF #** 201500243001  
**LOCATION OF ACCIDENT** Eaton, CO  
**SPECIMENS** Bile, Blood, Brain, Gastric, Heart, Kidney, Liver, Lung, Muscle, Spleen, Vitreous

<b>FINAL FORENSIC TOXICOLOGY FATAL ACCIDENT REPORT</b>
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**CARBON MONOXIDE:** The carboxyhemoglobin (COHb) saturation is determined by spectrophotometry with a 10% cut off and confirmed by chromatography.

>> NO CARBON MONOXIDE detected in Blood

**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.

>> NO ETHANOL detected in Vitreous

**DRUGS:** Specimens are analyzed using immunoassay, chromatography, GC/MS, HPLC/MS, or GC/FTIR. 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), marijuana (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 Blood

Russell Lewis, Ph.D.  
TC, FAA, Forensic Toxicology  
Research Team CAMI