



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

Mike Monroney
Aeronautical Center

P. O. Box 25082
Oklahoma City, Oklahoma 73125

Thursday, November 17, 2016

National Transportation Safety Board
45065 Riverside Parkway
Ashburn, VA 20147

ACCIDENT # 0189 **INDIVIDUAL#:** 001 **NAME:** Chartrand, Robert A. **MODE:** AVIATION
DATE OF ACCIDENT 09/03/2016 **DATE RECEIVED** 09/08/2016 **PUTREFACTION:** No
 N # 6091E **NTSB #** ERA16FA309 **CAMI REF #** 201600189001
LOCATION OF ACCIDENT Hollywood, FL
SPECIMENS Bile, Blood (Cavity), Brain, Gastric, Heart, Kidney, Liver, Lung, Muscle, Spleen, Urine, Vitreous

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.

>> NO CARBON MONOXIDE detected in Blood (Cavity)

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/>).

>> 28.44 (ug/ml, ug/g) Acetaminophen detected in Urine
>> 0.03 (ug/ml, ug/g) Codeine detected in Urine
>> Desmethyltramadol (N-) detected in Urine
>> Desmethyltramadol (N-) detected in Blood (Cavity)
>> Desmethyltramadol (O-) detected in Urine
>> 0.154 (ug/mL, ug/g) Desmethyltramadol (O-) detected in Blood (Cavity)
>> Diclofenac detected in Urine
>> Diphenhydramine detected in Liver
>> Diphenhydramine NOT detected in Blood (Cavity)
>> Inconclusive for Codeine in Blood (Cavity)
>> Tramadol detected in Urine
>> 0.593 (ug/mL, ug/g) Tramadol detected in Blood (Cavity)

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CONTINUATION OF REF#: 201600189001 – Chartrand, Robert A.



c=US, o=U.S. Government, ou=AMC, ou=AMC,
cn=RUSSELL J LEWIS
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Russell Lewis, Ph.D., F-ABFT
TC, FAA, Forensic Toxicology
Research Team CAMI