


MEDICAL EXAMINER
District Six
 Pasco & Pinellas Counties



10900 Ulmerton Road
 Largo, FL 33778
 727-582-6800
 (Fax 727-582-6820)
www.co.pinellas.fl.us/forensics


REPORT OF AUTOPSY

Name: BOWDOIN, Laura Case #: 5080954 Age: 36 Yrs. Race: White Sex: Female
 Investigating Agency: Pasco County Sheriff's Office Agency Case #: 08-36025
 Date of Death: June 19, 2008 Date of Autopsy: June 20, 2008 at: 1051 hrs.

AUTOPSY FINDINGS

1. Pulmonary edema and congestion
2. Post-mortem toxicology (see toxicology report):
 Zolpidem (blood): 930 ng/mL
 Ethylene glycol (blood): Negative

Cause of Death: Zolpidem toxicity
Manner of Death: Undetermined



 Susan S. Ignacio, M.D.
 Associate Medical Examiner

Date: 09/12/2008

REPORT OF AUTOPSY**NAME: BOWDOIN, Laura****CASE NUMBER: 5080954**

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EXTERNAL EXAMINATION:

The body is that of a well-developed, well-nourished, 143 pound, 66 inch, white female who appears the reported age of 36 years. The scalp has long blonde hair. The eyes have blue irides. The mouth has native dentition in good repair. The neck is free of visible scar or injury. The chest is symmetric and free of visible injury or tattoo. Scars are around the nipples. The abdomen is free of visible scar, injury or tattoo. The external genitalia are normal. The back, upper and lower extremities are free of visible injury or tattoo. Two small scars are in the lower back.

EVIDENCE OF MEDICAL INTERVENTION:

An endotracheal tube is inserted into the oropharynx and ends in the trachea. EKG leads are on the chest. Defibrillator pads are on the chest. A hospital band is around the left wrist. An intravenous line is in the left antecubital fossa and has surrounding ecchymosis.

INTERNAL EXAMINATION:

The anterior chest wall and abdominal wall are free of extravasated blood. The ribs, clavicles and sternum are intact. Implants are in the breasts. The pleural and abdominal cavities are free of excess fluid, blood or exudate. The pericardium is intact and contains a minimal amount of yellow serous fluid.

The esophagus has a smooth, pink tan serosal surface and a pale gray mucosal surface without ulcers. The stomach has a smooth tan serosal surface and a tan mucosal surface with normal rugal folds. The stomach contains approximately five cc of dark gray digested food material. The small bowel has a smooth serosal surface and is unremarkable. The large bowel has normal haustral markings and a vermiform appendix. The pancreas is yellow tan and lobulated.

The adrenal glands have firm yellow cortices and inconspicuous gray brown medullae.

The uterus, ovaries and fallopian tubes are unremarkable.

The strap muscles of the neck are red brown and free of injury. The thyroid cartilage and hyoid bone are intact. The epiglottis, larynx and trachea are patent and intact. The thyroid gland is dark red and uniform throughout.

The 1480 gram liver has a smooth capsular surface. The parenchyma is red brown and uniform throughout. The gallbladder is intact and contains approximately 20 cc of yellow orange bile and no calculi.

The 210 gram spleen has a wrinkled gray capsular surface. The parenchyma is dark red and uniform throughout.

REPORT OF AUTOPSY

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NAME: BOWDOIN, Laura**CASE NUMBER: 5080954**

The right and left kidneys are 100 and 130 grams respectively. The cortical surfaces are smooth. The parenchyma is red brown with well-defined corticomedullary junctions. The pelvicaliceal systems are normal. The urinary bladder is intact and contains approximately 300 cc of urine.

The right and left lungs are 570 and 510 grams respectively. The pleural surfaces are smooth. The parenchyma is congested, edematous and free of visible suppuration, induration, granuloma or neoplasm. The bronchi are patent and intact. The pulmonary arteries are intact and free of thromboemboli.

The 260 gram heart has a smooth pink epicardial surface. The coronary arteries arise from the aorta in a normal fashion. The coronary ostia are patent. The right coronary artery supplies the posterior interventricular septum. The coronary arteries are thin-walled and patent. The myocardium is red brown and uniform throughout. The valve cusps and leaflets are thin, pliable and free of vegetations or fenestrations. The endocardium is smooth-walled and free of mural thrombi. The superior vena cava, inferior vena cava and pulmonary veins are intact and patent. The aorta is intact and has a smooth yellow intima.

The subgalea is free of hemorrhage. The calvarium and dura mater are intact. The epidural, subdural and subarachnoid spaces are free of blood. The 1220 gram brain has symmetric cerebral and cerebellar hemispheres covered by congested transparent leptomeninges. The cerebral cortex is tan and uniform throughout. The white matter is uniform throughout. The basal ganglia, caudate nuclei, thalami and mamillary bodies are symmetric and free of abnormalities. The cerebellum, midbrain, pons and medulla oblongata are free of lesions. The proximal cervical spinal cord is intact. The cerebral vasculature is thin-walled and patent. The anterior, middle and posterior cranial fossae are intact.

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Pinellas County Forensic Laboratory

10900 Ulmerton Road · Largo Florida · 33778
(727) 582-6810 · Fax (727) 582-6822

Results of Laboratory Analysis Toxicology Section

Laboratory Number	08-0005387	Date of Report	August 21, 2008
Submitting Agency	District Six Medical Examiner		
Case Agency	District Six Medical Examiner		
Agency Number	5080954		
Subject	Bowdoin, Laura		

Description of Items Submitted

- Item 1A Plastic collection tube (sodium fluoride preservative) containing approximately 11 ml of blood (heart).
- Item 1B Large plastic tube (sodium fluoride preservative) containing approximately 37 ml of blood (heart).
- Item 2A Small plastic collection tube (no additives) containing approximately 2 ml of blood (heart).
- Item 2B Small plastic collection tube (no additives) containing approximately 2 ml of blood (heart).
- Item 2C Small plastic collection tube (no additives) containing approximately 6.5 ml of serum (post mortem).
- Item 3 Plastic collection tube (sodium fluoride preservative) containing approximately 5.5 ml of blood (flac).
- Item 4 Large plastic tube (no additives) containing approximately 37 ml of urine.
- Item 5 Large plastic tube (no additives) containing approximately 7 ml of gastric contents.
- Item 6 Large plastic tube (no additives) containing liver tissue.
- Item 7 Small plastic collection tube (no additives) containing approximately 5 ml of vitreous fluid.

Results of Analysis

Item 1A - Blood (Heart)

Analyses Performed

Volatiles Quantitation by GC-FID (ethanol, acetone, methanol, isopropanol)

External Analyses by NMS Labs*

Quantitation Results

Ethanol	Negative	Quant Limit: 0.010 g/dL
Methanol	Negative	Quant Limit: 0.010 g/dL
Isopropanol	Negative	Quant Limit: 0.010 g/dL
Acetone	Negative	Quant Limit: 0.010 g/dL
Ethylene Glycol	Negative	Quant Limit: 5.0 ng/mL *
Zolpidem	Positive	930 ng/mL *

Item 2C - Serum (Post mortem)

Analyses Performed

ME1-immunoassay Drug Screen (acetaminophen, barbiturates, benzodiazepines, carisoprodol, cocaine metabolites, fentanyl metabolites, methamphetamine/MDMA, methadone metabolites, opiates, propoxyphene metabolites, salicylates,


Jeffrey Hays
Forensic Toxicologist

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9-11-08

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Results of Laboratory Analysis Toxicology Section

Laboratory Number	08-0005387	Date of Report	August 21, 2008
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tricyclics)

The following were indicated by immunoassay:
Negative

Item 4 - Urine

Analyses Performed

Basic/Neutral Drug TLC Screen with GC-MS Confirmation
Benzodiazepine Screen and Confirmation by GC-MS

Substances Identified

Caffeine, Zolpidem

The following were indicated by gas chromatography - mass spectrometry:
Naproxen

Item 7 - Vitreous Fluid

Analyses Performed

Volatiles Quantitation by GC-FID (ethanol, acetone, methanol, isopropanol)

Quantitation Results

Ethanol	Negative	Quant Limit: 0.010 g/dL
Methanol	Negative	Quant Limit: 0.010 g/dL
Isopropanol	Negative	Quant Limit: 0.010 g/dL
Acetone	Negative	Quant Limit: 0.010 g/dL

Note(s):

- 1) *Analysis provided by external laboratory; report attached.
- 2) Unless other arrangements are made, specimens will be discarded after a minimum two year retention.
- 3) Results of analysis contain the opinions and interpretations of the case analyst.


 Jeffrey Hays
 Forensic Toxicologist

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**Results of Laboratory Analysis
Toxicology Section**

Laboratory Number	08-0005387	Date of Report	August 21, 2008
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Agency Number	5080954		
Subject	Bowdoin, Laura		

Continued,

END OF REPORT


 Jeffrey Hays
 Forensic Toxicologist



NMS Labs

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3701 Welsh Road, PO Box 433A, Willow Grove, PA 19090-0437
 Phone: (215) 657-4800 Fax: (215) 657-2872
 e-mail: nms@nmslabs.com
 Robert A. Middleberg, PhD, DABFT, DABCC-TC, Laboratory Director

Toxicology Report

Report Issued 07/30/2008 20:00

20004
 Pinellas County Forensic Lab
 Attn: Reta Newman
 10900 Ulmerton Road
 Largo, FL 33778

Patient Name BOWDOIN, LAURA
 Patient ID 08-5387-PA-1A
 Chain 10923518
 Age Not Given Gender Not Given

Workorder 08222346

Received 07/23/2008 13:54

This analysis was performed under chain of custody. The chain of custody documentation is on file at 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 of this report.

Sample ID 08222346-001
 Matrix Blood
 Patient Name BOWDOIN, LAURA
 Patient ID 08-5387-PA-1A
 Container Type Clear Vial

Collect Dt/Tm Not Given
 Source Cardiac Blood

Approx Vol/Weight 10 mL

Receipt Notes None Entered

Analysis and Comments	Result	Units	Reporting Limit	Notes
2062B Ethylene Glycol, Blood				
Analysis by Gas Chromatography (GC)				
Ethylene Glycol	None Detected	mg/dL	5.0	
Normal range: none detected Reported survivors: Up to 650 mg/dL Reported fatalities: 30 to 4300 mg/dL				
2483B Zolpidem, Blood				
Analysis by Gas Chromatography (GC)				
Zolpidem	930	ng/mL	4.0	ELEVATED
Synonym(s): Ambien®				

Results for sample 08222346-001 are continued on next page



NMS Labs

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Robert A. Middleberg, PhD, DABFT, DABCC-TC, Laboratory Director

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Sample ID 08222348-001

Matrix: Blood

Patient Name BOWDOIN, LAURA

Patient ID 08-5387-PA-1A

Collect Dt/Tm Not Given

Source Cardiac Blood

Analysis and Comments	Result	Units	Reporting Limit	Notes
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Peak plasma concentrations following single oral 5 and 10 mg doses: 29 - 113 ng/mL (mean = 59 ng/mL) and 59 - 272 ng/mL (mean = 121 ng/mL), respectively, occurring at a mean time of 1.6 hours.

Clozapine and haloperidol interfere with Zolpidem in this analysis. The presence of clozapine or haloperidol will adversely affect the quantitation of Zolpidem. If clozapine or haloperidol are potential interferences in this case, call the laboratory for alternate quantitative procedures.