

FORENSIC MEDICAL MANAGEMENT SERVICES OF TEXAS, P.A.
Beaumont/Jefferson County
PO Box 20097
Beaumont, Texas 77720

Case Number: 13-0814
County: SABINE

AUTOPSY REPORT

NAME OF DECEDENT: Wright, Alfred **RACE:** B **SEX:** M **AGE:** 28 years
DATE AND TIME OF DEATH: November 25, 2013 at 7:00 p.m.
DATE AND TIME OF AUTOPSY: November 26, 2013 at 3:45 p.m.
FORENSIC PATHOLOGIST: John W. Ralston, M.D.

PATHOLOGIC DIAGNOSES

1. Combined drug intoxication, including cocaine, methamphetamine and amphetamine (see toxicology report).
 2. Shallow puncture wounds to the abdomen, left thigh, left lower leg, and palm of the left hand.
 3. Decompositional changes and evidence of animal activity.
 4. No evidence of severe trauma.
-

CAUSE OF DEATH: Combined drug intoxication.

MANNER OF DEATH: Accident.

I hereby certify that I, John W. Ralston, M.D. have performed an autopsy on the body of Alfred Wright on the 26th day of November 2013 at 3:45 p.m. at the Forensic Medical Management Services facility in Beaumont, Texas.

IDENTIFICATION: Identification is provided by the Justice of the Peace.

CIRCUMSTANCES/HISTORY: Reportedly, the decedent was discovered in a wooded area in rural Sabine County after having been missing for approximately two weeks.

AUTHORIZATION: The Honorable James Brasher, Justice of the Peace, Precinct 2, Sabine County, Texas has given written authorization to perform an autopsy on the decedent.

ATTENDEES:

FORENSIC TECHNICIANS: John Edwards and Jodi Simon

LAW ENFORCEMENT/OTHER: Daniel Young, Texas Rangers, Company "A"



IDENTIFYING SCARS, MARKS & TATTOOS:

1. On the left and right upper back is a design tattoo, 17.0 x 9.0 inches.
2. On the back of the left upper arm is a picture tattoo of a shield with flames and writing "KAMRYN", 8.5 x 6.0 inches.
3. On the back of the right upper arm is a writing tattoo "I CAN DO ALL THINGS THROUGH CHRIST WHO STRENGTHENS ME PHILLIPIANS 4:13", 5.0 x 4.0 inches.
4. On the back of the right upper arm is a writing tattoo "KING", 7.0 x 2.0 inches.
5. On the back of the right upper arm is a picture tattoo of hands with writing "RIP SAM HAMM", 5.0 x 5.0 inches.

EVIDENCE OF INJURY:

1. On the palm of the left hand is a round puncture wound, 0.2 inches.
2. On the right lower abdomen, 42.0 inches above the bottom of the foot and 1.0 inches right of the anterior midline, is a round puncture wound, 0.2 inches.
3. On the left lower abdomen, 42.0 inches above the bottom of the foot and 3.0 inches left of the anterior midline, is a round puncture wound, 0.2 inches.
4. On the front of the left thigh, 25.5 inches above the bottom of the foot, are two round puncture wounds, separated by a distance of 0.7 inches, measuring 0.2 inches each.
5. On the front of the left lower leg, 15.0 inches above the bottom of the foot, is a round puncture wound, 0.2 inches.
6. On the front of the left lower leg, at 13.0 inches above the bottom of the foot, is a vertical incised wound, 1.2 x 0.2 inches.
7. On the bottom of the left foot is a red impression/abrasion, 2.0 x 1.0 inches.

The above injuries, having once been described, will not be referred to below.

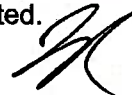
EXTERNAL EXAMINATION:

The body is received clothed in a pair of black undershorts, a pair of black shoes, and one black sock on the left foot. Accompanying the body is a white metal ring, a cell phone, and a key chain.

~~The body is that of a well-developed, and well-nourished Black male, measuring 67 inches in length, weighing 125 pounds, and appearing the recorded age of 28 years. A yellow plastic identification bracelet encircles the right ankle and reads "Alfred Wright" and "13-0814".~~

The body is not embalmed. Rigor mortis is not evident. Purple fixed livor mortis is noted on the anterior surfaces of the body, with the exception of the pressure points. Extensive decompositional changes are noted with skin slippage over all body surfaces, insect activity over the head, chest, and abdomen, and animal activity noted over the face, eyes, and left ear, with skeletonization of the face.

The scalp is covered with short black curly hair. The scalp is without evidence of injury. The eyes are absent due to animal activity. The skeleton of the nose is intact. The right earlobe is unremarkable. The lips, oral mucosa and frenula are absent. The teeth are natural with the absence of the right and left central upper incisors and the left central lower incisor due to insect activity. The neck is symmetrical with extensive animal activity noted.



The chest, abdomen, posterior neck, back, buttocks, anus and upper and lower extremities are symmetrical and normally developed with injuries as previously described. The abdomen is soft and flat. The external genitalia appear normal circumcised adult male with both testes present in the scrotum. Skin slippage is noted on the hands with the absence of the fingernail on the right index finger. The remaining fingernails are short with underlying dirt. The toenails are short and clean. The soles of the feet are clean.

INTERNAL EXAMINATION:

BODY CAVITIES: The body is entered by a Y-shaped incision. The head is entered through an intermastoid incision. All organs are within their usual anatomic positions and relationships without abnormal fluid accumulation.

NECK ORGANS: The anterior muscles of the neck show extensive postmortem animal activity. The cartilages of the larynx and epiglottis are intact. The hyoid bone is intact. The mucosal surfaces are tan/gray and smooth with extensive insect activity. The trachea and proximal bronchi contain abundant insect larvae. The tongue is absent.

RESPIRATORY SYSTEM: The right lung weighs 450 g; the left lung weighs 315 g. The lungs are not hyperinflated. The pleural surfaces are dark red/purple. Cut sections show diffuse dark red congestion. There is no fibrosis, emphysema or infiltrate. The pulmonary vasculature is intact and free of thromboemboli.


CARDIOVASCULAR SYSTEM: The heart weighs 400 g and appears normally formed. The pericardium is intact. There is no fibrosis or effusion. The epicardium is unremarkable without petechiae. The coronary arteries are normally configured with minimal atherosclerosis. On cut sections, the myocardium is brown without fibrosis or discoloration. The left ventricular free wall is 1.4 cm thick, the interventricular septum is 1.5 cm thick, and the right ventricular wall is 0.4 cm thick. There is no atrial or ventricular dilation, hypertrophy, or endocardial fibrosis. The valves of the heart and great vessels are unremarkable. The aorta is intact with minimal atherosclerosis.

HEPATOBIILIARY SYSTEM: The liver weighs 1450 g. The external surface is smooth with sharp margins and brown. Cut sections show soft brown tissue without fibrosis or cirrhosis. The biliary tracts are unremarkable with approximately 5 cc of bile in the gallbladder without stones.

GASTROINTESTINAL SYSTEM: The esophagus is unremarkable. The stomach contains approximately 20 cc of tan fluid. The gastric mucosa is tan with flattened rugal folds. There is no ulceration or hemorrhage. The duodenum and small and large intestines are unremarkable. The appendix is present.

HEMOLYMPHATIC SYSTEM: The spleen weighs 125 g. The external surface is soft, gray/purple and wrinkled. Cut sections show unremarkable red pulp and unremarkable follicles. There is no lymphadenopathy.

GENITOURINARY SYSTEM: The right kidney weighs 125 g; the left kidney weighs 125 g. The external surfaces are smooth and red/brown. Cut sections show unremarkable cortices and unremarkable medullae. The renal pelves, ureters and urinary bladder are unremarkable. The urinary bladder contains approximately 200 cc of yellow urine and has an intact white/gray wrinkled mucosa. The prostate is unremarkable externally and on sectioning.



ENDOCRINE SYSTEM: Examination of the pituitary, pancreas, thyroid and adrenal glands is unremarkable externally and on sectioning.

MUSCULOSKELETAL SYSTEM: The general musculature is brown with insect and animal activity noted as previously described. No fractures are identified.

CENTRAL NERVOUS SYSTEM: The brain weighs 490 g. The scalp is without laceration or hematoma. Upon reflection of the scalp, there is no subgaleal hemorrhage. The calvarium and skull base are intact. Upon entering the cranial cavity, there is no epidural, subdural or subarachnoid hemorrhage. Extensive insect activity is noted with abundant larvae. The remaining cerebral tissue is friable with loss of architectural landmarks. The vessels at the base of the brain are unremarkable. The cervical spinal cord, viewed in the foramen magnum, and internal palpation of the neck is unremarkable.

X-RAY EXAMINATION: Postmortem radiographs reveal no skeletal fractures or foreign objects.

ADDITIONAL STUDIES AND PROCEDURES:

1. **TISSUE SAMPLES SUBMITTED FOR TOXICOLOGY:** Samples of central blood and urine are submitted for analysis. Samples of kidney, liver, and bile are held for future testing as needed. Samples will be held for a period of one year from date of autopsy.
2. Tissue samples are placed in a formalin stock bottle. Tissue samples will be held for a period of five years from date of autopsy.
3. Documentation photographs are obtained.
4. Fingerprints are obtained.
5. Pulled head hair samples are obtained.
6. Blood card standards are obtained.
7. The subject's clothing is submitted to the Texas Rangers.

TOXICOLOGY RESULTS: Toxicology testing is positive for cocaine and metabolites, within lethal range, as well as methamphetamine, amphetamine, nicotine metabolites and alprazolam. Please see toxicology report for full details.

SUMMARY OF CASE/OPINION: Circumstances and history are reviewed above. Toxicology is reviewed above.

In my opinion, the cause of death of this 28 year old Black male, Alfred Wright, is due to combined drug intoxication.

The manner of death is accident.


John W. Ralston, M.D.
Chief Forensic Pathologist

1/7/2014
Date

**NMS Labs****CONFIDENTIAL**

3701 Welsh Road, PO Box 433A, Willow Grove, PA 19090-0437

Phone: (215) 657-4900 Fax: (215) 657-2972

e-mail: nms@nmslabs.com

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

Toxicology Report**Report Issued** 01/07/2014 11:00**Last Report Issued** 12/17/2013 13:54**To: 10240**Forensic Medical Management Services -
5030 Highway 69 South, Ste.700

Beaumont, TX 77705

Patient Name WRIGHT, ALFRED**Patient ID** 13-0814**Chain** 11680489**Age** 28 Y**Gender** Male**Workorder** 13294894**Page 1 of 7****Positive Findings:**

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>Matrix Source</u>
Benzoyllecgonine	Positive	ng/mL	Cardiac Blood
Ecgonine Methyl Ester	530	ng/mL	Cardiac Blood
Ethanol	36	mg/dL	Cardiac Blood
Blood Alcohol Concentration (BAC)	0.036	g/100 mL	Cardiac Blood
Acetone	6.5	mg/dL	Cardiac Blood
Cotinine	Positive	ng/mL	Cardiac Blood
Alprazolam	36	ng/mL	Cardiac Blood
Benzoyllecgonine	1800	ng/mL	Cardiac Blood
Amphetamine	30	ng/mL	Cardiac Blood
Methamphetamine	140	ng/mL	Cardiac Blood
Cocaine	2700	ng/mL	Urine
Benzoyllecgonine	>50000	ng/mL	Urine

See Detailed Findings section for additional information

Testing Requested:

<u>Analysis Code</u>	<u>Description</u>
1300U	Cocaine and Metabolites, Urine
1303B	Cocaine and Products Panel, Blood
7757SA	Special Request: Formic Acid in blood
8052B	Postmortem Toxicology - Expanded, Blood (Forensic)
8756B	Bath Salts and Stimulants Designer Drugs - Expanded, Blood
9560B	Synthetic Cannabinoids Screen, Blood (Forensic)

Tests Not Performed:Part or all of the requested testing was unable to be performed. Refer to the **Analysis Summary and Reporting Limits** section for details.**Specimens Received:**

<u>ID</u>	<u>Tube/Container</u>	<u>Volume/ Mass</u>	<u>Collection Date/Time</u>	<u>Matrix Source</u>	<u>Miscellaneous Information</u>
001	Gray Top Tube	9 mL	11/26/2013 15:45	Cardiac Blood	
002	Gray Top Tube	9 mL	11/26/2013 15:45	Cardiac Blood	
003	Red Top Tube	8.6 mL	11/26/2013 15:45	Urine	



CONFIDENTIAL

Workorder 13294894
Chain 11680489
Patient ID 13-0814

Page 2 of 7

ID	Tube/Container	Volume/ Mass	Collection Date/Time	Matrix Source	Miscellaneous Information
----	----------------	-----------------	-------------------------	---------------	------------------------------

All sample volumes/weights are approximations.

Specimens received on 12/05/2013.

Detailed Findings:

Analysis and Comments	Result	Units	Rpt. Limit	Specimen Source	Analysis By
Benzoylcegonine	Positive	ng/mL	50	002 - Cardiac Blood	GC/MS
Reconfirmed in tube -002 by GC/MS					
Ecgonine Methyl Ester	530	ng/mL	20	002 - Cardiac Blood	GC/MS
Special Request Finding(s)	TNP			001 - Cardiac Blood	[Depending on request]
Ethanol	36	mg/dL	10	001 - Cardiac Blood	Headspace GC
Blood Alcohol Concentration (BAC)	0.036	g/100 mL	0.010	001 - Cardiac Blood	Headspace GC
Acetone	6.5	mg/dL	5.0	001 - Cardiac Blood	Headspace GC
Cotinine	Positive	ng/mL	1000	001 - Cardiac Blood	LC/TOF-MS
Alprazolam	36	ng/mL	5.0	001 - Cardiac Blood	LC-MS/MS
Benzoylcegonine	1800	ng/mL	50	001 - Cardiac Blood	GC/MS
Ethanol	Confirmed	mg/dL	10	001 - Cardiac Blood	Headspace GC
Acetone	Confirmed	mg/dL	5.0	001 - Cardiac Blood	Headspace GC
Amphetamine	30	ng/mL	5.0	001 - Cardiac Blood	LC-MS/MS
Methamphetamine	140	ng/mL	5.0	001 - Cardiac Blood	LC-MS/MS
Cocaine	2700	ng/mL	200	003 - Urine	GC/MS
Benzoylcegonine	>50000	ng/mL	150	003 - Urine	GC/MS

Other than the above findings, examination of the specimen(s) submitted did not reveal any positive findings of toxicological significance by procedures outlined in the accompanying Analysis Summary.

Reference Comments:

1. Acetone - Cardiac Blood:

Acetone is a solvent used for chemicals, paints, etc. It is also a product of diabetic- and fasting-induced ketoacidosis as well as a metabolite following isopropanol ingestion. In high concentrations, acetone can have CNS-depressing effects. Symptoms include lethargy, ataxia, headache, nausea and lightheadedness. Stupor and coma appear in severe cases. Acetone produced in the body as a result of uncontrolled diabetes can also be converted to isopropanol.

Reported normal endogenous acetone levels in blood are up to 3 mg/dL. Levels associated with diabetic or fasting ketoacidosis range from 10 - 70 mg/dL. After exposure to 100 and 500 ppm acetone for 2 hr, reported blood acetone concentrations peaked at 2 and 10 mg/dL, respectively. A blood level of 250 mg/dL was reported in an individual who became lethargic following ingestion of acetone.

2. Alprazolam (Xanax®) - Cardiac Blood:

Alprazolam is a DEA Schedule IV second-generation benzodiazepine, which is effective at very low doses. It shares the actions of other benzodiazepines in the management of anxiety disorders and short-term relief of anxiety associated with depressive symptoms. Alpha-hydroxyalprazolam is an active metabolite of alprazolam. Common CNS-depressant side effects of alprazolam include drowsiness and fatigue. For anxiety, daily doses of 0.8 to 4 mg are effective whereas for phobic and panic disorders, 6 to 9 mg daily is recommended.



CONFIDENTIAL

Workorder 13294894
Chain 11680489
Patient ID 13-0814

Page 3 of 7

Reference Comments:

Reported therapeutic plasma concentrations of alprazolam are proportional to dose given: 3 mg/day produced steady-state levels of 30 ng/mL; 6 mg/day, 60 ng/mL; and 9 mg/day, 100 ng/mL.

In reported cases involving driving under the influence, alprazolam concentrations ranged from 8 - 640 ng/mL. Alcohol greatly enhances the activity of benzodiazepines.

Reported blood concentrations of alprazolam in alprazolam-related fatalities ranged from 100 - 400 ng/mL (mean, 200 ng/mL). In combination with other central nervous system depressants such as ethyl alcohol, alprazolam can become toxic at low concentrations.

3. Amphetamine (Benzphetamine Metabolite) - Cardiac Blood:

Amphetamine (Adderall, Dexedrine) is a Schedule II phenethylamine CNS-stimulant. It is used therapeutically in the treatment of narcolepsy and obesity and also in the treatment of hyperactivity in children. Amphetamine has a high potential for abuse. When used in therapy, initial doses should be small and increased gradually. In the treatment of narcolepsy, amphetamine is administered in daily divided doses of 5 to 60 mg. For obesity and children with attention deficits, usual dosage is 5 or 10 mg daily.

Following a single oral dose of 10 mg amphetamine sulfate, a reported peak blood concentration of 40 ng/mL was reached at 2 hr. Following a single 30 mg dose to adults, an average peak plasma level of 100 ng/mL was reported at 2.5 hr. A steady-state blood level of 2000 - 3000 ng/mL was reported in an addict who consumed approximately 1000 mg daily.

Overdose with amphetamine can produce restlessness, hyperthermia, convulsions, hallucinations, respiratory and/or cardiac failure. Reported blood concentrations in amphetamine-related fatalities ranged from 500 - 41000 ng/mL (mean, 9000 ng/mL). Amphetamine is also a metabolite of methamphetamine, benzphetamine and selegiline.

4. Benzoyllecgonine (Cocaine Degradation Product) - Cardiac Blood:

Benzoyllecgonine is an inactive metabolite and chemical breakdown product of cocaine. Cocaine is a DEA Schedule II controlled central nervous stimulant drug. Effects following cocaine use can include euphoria, excitement, restlessness, risk taking, sleep disturbance, and aggression. A period of mental and physical fatigue and somnolence follow the use of cocaine after the excitant-stimulant effects wear off.

Benzoyllecgonine has a half-life of 6 to 10 hours. The average blood benzoyllecgonine concentration in 906 impaired drivers was 1260 ng/mL (range 5 - 17600 ng/mL). Benzoyllecgonine blood concentrations in patients admitted to an emergency room for cocaine related medical complaints were 1280 ng/mL (SD = 1290 ng/mL). Benzoyllecgonine concentrations in plasma following oral administration of 2 g/day of cocaine over 6 days, averaged 4900 ng/mL. The average blood benzoyllecgonine concentration in 37 cocaine related fatalities was 7900 ng/mL (range 700 - 31000 ng/mL).

5. Benzoyllecgonine (Cocaine Degradation Product) - Urine:

Benzoyllecgonine is an inactive metabolite and chemical breakdown product of cocaine. Cocaine is a DEA Schedule II controlled central nervous stimulant drug. Effects following cocaine use can include euphoria, excitement, restlessness, risk taking, sleep disturbance and aggression. A period of mental and physical fatigue and somnolence follow the use of cocaine after the excitant-stimulant effects wear off. It has a half-life of 6 to 10 hours.

6. Cocaine - Urine:

Cocaine is a DEA Schedule II controlled central nervous stimulant drug. Effects following cocaine use can include euphoria, excitement, restlessness, risk taking, sleep disturbance, and aggression. A period of mental and physical fatigue and somnolence follow the use of cocaine after the excitant-stimulant effects wear off. Cocaine is metabolized to the inactive compounds benzoyllecgonine, ecgonine methyl ester, and ecgonine. Benzoyllecgonine and ecgonine methyl ester can form from cocaine breakdown after death and even after sample collection. (See also Benzoyllecgonine).



CONFIDENTIAL

Workorder 13294894
Chain 11680489
Patient ID 13-0814

Page 4 of 7

Reference Comments:

7. Cotinine (Nicotine Metabolite) - Cardiac Blood:

Cotinine is a metabolite of nicotine and may be encountered in the fluids and tissues of an individual as a result of tobacco exposure.

Anabasine is a natural product occurring in tobacco, but not in pharmaceutical nicotine and a separate test for anabasine in urine can be used to distinguish tobacco from pharmaceutical nicotine use.

The reported qualitative result for this substance was based upon a single analysis only. If confirmation testing is required please contact the laboratory.

8. Ecgonine Methyl Ester (Cocaine Metabolite) - Cardiac Blood:

Ecgonine methyl ester is formed enzymatically by plasma and liver cholinesterases, and is an inactive metabolite. Ecgonine methyl ester concentrations appear to be higher following oral administration than via other routes.

9. Ethanol (Ethyl Alcohol) - Cardiac Blood:

Ethyl alcohol (ethanol, drinking alcohol) is a central nervous system depressant and can cause effects such as impaired judgment, reduced alertness and impaired muscular coordination. Ethanol can also be a product of decomposition or degradation of biological samples. The blood alcohol concentrations (BAC) can be expressed as a whole number with the units of mg/dL or as a decimal number with units of g/100 mL which is equivalent to % w/v. For example, a BAC of 85 mg/dL equals 0.085 g/100 mL or 0.085% w/v of ethanol.

10. Methamphetamine (Benzphetamine Metabolite) - Cardiac Blood:

d-methamphetamine is a DEA schedule II stimulant drug capable of causing hallucinations, aggressive behavior and irrational reactions. Chemically, there are two forms (isomers) of methamphetamine: l- and d-methamphetamine. The l-isomer is used in non-prescription inhalers as a decongestant and has weak CNS-stimulatory activity. The d-isomer has been used therapeutically as an anorexigenic agent in the treatment of obesity and has potent CNS-, cardiac- and circulatory-stimulatory activity. Amphetamine and norephedrine (phenylpropanolamine) are metabolites of methamphetamine. d-methamphetamine is an abused substance because of its stimulatory effects and is also addictive.

A peak blood concentration of methamphetamine of 20 ng/mL was reported at 2.5 hr after an oral dosage of 12.5 mg. Blood levels of 200 - 600 ng/mL have been reported in methamphetamine abusers who exhibited violent and irrational behavior. High doses of methamphetamine can also elicit restlessness, confusion, hallucinations, circulatory collapse and convulsions.

*In this case, the level of methamphetamine determined has not been differentiated according to its isomeric forms. Differentiation of the isomers of methamphetamine is available upon request.

Sample Comments:

001 Physician/Pathologist Name: JOHN RALSTON, MD

Unless alternate arrangements are made by you, the remainder of the submitted specimens will be discarded one (1) year from the date of this report; and generated data will be discarded five (5) years from the date the analyses were performed.

Workorder 13294894 was electronically signed on 01/07/2014 10:19 by:

Daniel S. Isenschmid, Ph.D., D-ABFT
Forensic Toxicologist



CONFIDENTIAL

Workorder 13294894

Chain 11680489

Patient ID 13-0814

Page 5 of 7

Analysis Summary and Reporting Limits:

All of the following tests were performed for this case. For each test, the compounds listed were included in the scope. Please refer to the Positive Findings section of the report for those compounds that were identified as being present.

Acode 1300U - Cocaine and Metabolites, Urine

-Analysis by Gas Chromatography/Mass Spectrometry (GC/MS) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Benzoyllecgonine	150 ng/mL	Cocaine	200 ng/mL
Cocaethylene	200 ng/mL		

Acode 1303B - Cocaine and Products Panel, Blood - Cardiac Blood

-Analysis by Gas Chromatography/Mass Spectrometry (GC/MS) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Benzoyllecgonine	50 ng/mL	Cocaine	20 ng/mL
Cocaethylene	20 ng/mL	Ecgonine Methyl Ester	20 ng/mL

Acode 50012B - Benzodiazepines Confirmation, Blood (Forensic) - Cardiac Blood

-Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
7-Amino Clonazepam	5.0 ng/mL	Flurazepam	2.0 ng/mL
Alpha-Hydroxyalprazolam	5.0 ng/mL	Hydroxyethylflurazepam	5.0 ng/mL
Alprazolam	5.0 ng/mL	Hydroxytriazolam	5.0 ng/mL
Chlordiazepoxide	20 ng/mL	Lorazepam	5.0 ng/mL
Clobazam	20 ng/mL	Midazolam	5.0 ng/mL
Clonazepam	2.0 ng/mL	Nordiazepam	20 ng/mL
Desalkylflurazepam	5.0 ng/mL	Oxazepam	20 ng/mL
Diazepam	20 ng/mL	Temazepam	20 ng/mL
Estazolam	5.0 ng/mL	Triazolam	2.0 ng/mL

Acode 50014B - Cocaine and Metabolites Confirmation, Blood (Forensic) - Cardiac Blood

-Analysis by Gas Chromatography/Mass Spectrometry (GC/MS) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Benzoyllecgonine	50 ng/mL	Cocaine	20 ng/mL
Cocaethylene	20 ng/mL		

Acode 52250B - Alcohols and Acetone Confirmation, Blood (Forensic) - Cardiac Blood

-Analysis by Headspace Gas Chromatography (GC) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Acetone	5.0 mg/dL	Isopropanol	5.0 mg/dL
Ethanol	10 mg/dL	Methanol	5.0 mg/dL

Acode 52409B - Amphetamines Confirmation, Blood (Forensic) - Cardiac Blood

-Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Amphetamine	5.0 ng/mL	Methamphetamine	5.0 ng/mL
Ephedrine	5.0 ng/mL	Norpseudoephedrine	5.0 ng/mL
MDA	5.0 ng/mL	Phendimetrazine	10 ng/mL
MDEA	10 ng/mL	Phenmetrazine	5.0 ng/mL



CONFIDENTIAL

Workorder 13294894
Chain 11680489
Patient ID 13-0814

Page 6 of 7

Analysis Summary and Reporting Limits:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Phentermine	10 ng/mL	Pseudoephedrine	5.0 ng/mL
Phenylpropanolamine	5.0 ng/mL		

Acode 52411B - GC Confirmation Set 2, Blood (Forensic) - Cardiac Blood

-Analysis by Gas Chromatography (GC) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Cyclobenzaprine	5.0 ng/mL	Orphenadrine	50 ng/mL
Desipramine	10 ng/mL	Promethazine	30 ng/mL
Desmethytrimipramine	10 ng/mL	Protriptyline	10 ng/mL
Fluphenazine Overdose	20 ng/mL	Pyrimidine	30 ng/mL
Imipramine	10 ng/mL	Thioridazine	100 ng/mL
Meperidine	0.020 mcg/mL	Tranlycypromine	10 ng/mL
Mesoridazine	100 ng/mL	Trimipramine	10 ng/mL
Normeperidine	0.010 mcg/mL	Triprolidine	30 ng/mL

Acode 7757SA - Special Request: Formic Acid in blood - Cardiac Blood

-Analysis by [Depending on request] for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Special Request Finding(s)	N/A		

Testing Not Performed: Test was canceled due to [Sample Matrix Problem].

Acode 8052B - Postmortem Toxicology - Expanded, Blood (Forensic) - Cardiac Blood

-Analysis by Enzyme-Linked Immunosorbent Assay (ELISA) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Barbiturates	0.040 mcg/mL	Salicylates	120 mcg/mL
Cannabinoids	10 ng/mL		

-Analysis by Headspace Gas Chromatography (GC) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
Acetone	5.0 mg/dL	Isopropanol	5.0 mg/dL
Ethanol	10 mg/dL	Methanol	5.0 mg/dL

-Analysis by High Performance Liquid Chromatography/Time of Flight-Mass Spectrometry (LC/TOF-MS) for: The following is a general list of compound classes included in this screen. The detection of any specific analyte is concentration-dependent. Note, not all known analytes in each specified compound class are included. Some specific analytes outside these classes are also included. For a detailed list of all analytes and reporting limits, please contact NMS Labs.

Amphetamines, Anticonvulsants, Antidepressants, Antihistamines, Antipsychotic Agents, Benzodiazepines, CNS Stimulants, Cocaine and Metabolites, Hallucinogens, Hypnotosedatives, Hypoglycemics, Muscle Relaxants, Non Steroidal Anti-Inflammatory Agents, Opiates and Opioids.

Acode 8756B - Bath Salts and Stimulants Designer Drugs - Expanded, Blood - Cardiac Blood

-Analysis by High Performance Liquid Chromatography/Time of Flight-Mass Spectrometry (LC/TOF-MS) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
2C-B	10 ng/mL	2C-E	10 ng/mL
2C-C	10 ng/mL	2C-H	10 ng/mL



CONFIDENTIAL

Workorder 13294894
Chain 11680489
Patient ID 13-0814

Page 7 of 7

Analysis Summary and Reporting Limits:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
2C-I	10 ng/mL	MDA	10 ng/mL
2C-N	10 ng/mL	MDEA	10 ng/mL
2C-P	10 ng/mL	MDMA	10 ng/mL
2C-T-2	10 ng/mL	MDPV	10 ng/mL
2C-T-7	10 ng/mL	Mephedrone	10 ng/mL
3,4-DMMC	10 ng/mL	Methamphetamine	10 ng/mL
3-FMC	10 ng/mL	Methcathinone	10 ng/mL
4-MEC	10 ng/mL	Methedrone	10 ng/mL
7-Hydroxymitragynine	10 ng/mL	Methoxetamine	2.0 ng/mL
Amphetamine	10 ng/mL	Methylone	10 ng/mL
BZP	10 ng/mL	Mitragynine	10 ng/mL
Buphedrone	10 ng/mL	Naphyrone	10 ng/mL
Butylone	10 ng/mL	O-Desmethyiltramadol	10 ng/mL
Cathinone	10 ng/mL	PMA	10 ng/mL
DBZP	10 ng/mL	Pentedrone	2.0 ng/mL
DMAA	50 ng/mL	Pentylone	10 ng/mL
DOB	10 ng/mL	Phenazepam	10 ng/mL
DOM	10 ng/mL	Pyrovalerone	10 ng/mL
Ethylone	10 ng/mL	TFMPP	10 ng/mL
Flephedrone	10 ng/mL	alpha-PVP	2.0 ng/mL
MBZP	10 ng/mL	mCPP	10 ng/mL

Acode 9560B - Synthetic Cannabinoids Screen, Blood (Forensic) - Cardiac Blood

-Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS) for:

<u>Compound</u>	<u>Rpt. Limit</u>	<u>Compound</u>	<u>Rpt. Limit</u>
A-796260	0.20 ng/mL	JWH-081	0.10 ng/mL
AM-1248	0.10 ng/mL	JWH-122	0.10 ng/mL
AM-2201	0.10 ng/mL	JWH-200	0.10 ng/mL
AM-2233	0.10 ng/mL	JWH-203	0.10 ng/mL
AM-694	0.10 ng/mL	JWH-210	0.10 ng/mL
JWH-018	0.10 ng/mL	JWH-250	0.10 ng/mL
JWH-018 5-chloropentyl	0.10 ng/mL	RCS-4	0.10 ng/mL
JWH-019	0.10 ng/mL	RCS-8	0.10 ng/mL
JWH-022	0.10 ng/mL	UR-144	0.10 ng/mL
JWH-073	0.10 ng/mL	XLR-11	0.10 ng/mL