



NMS Labs

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Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Demo Report

Report Issued 11/13/2017 08:41
Last Report Issued 09/20/2017 07:47

88888
Clinical Example Report
Attn: IT Department
200 Welsh Road
Horsham, PA 19044-2208

Patient Name 8210B-POS
Patient ID 8210B-POS
Chain 17001771
Age Not Given DOB Not Given
Gender Not Given
Workorder 17001771
Received 09/18/2017 06:53

Sample ID 17001771-001
Matrix Blood
Patient Name 8210B-POS
Patient ID 8210B-POS
Container Type Clear vial

Collect Dt/Tm Not Given
Source Not Given

Approx Vol/Weight Not Given

Receipt Notes None Entered

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes

8210B Novel Psychoactive Substances (NPS)
Screen 2, Blood

Analysis by Gas Chromatography/Mass Spectrometry(GC/MS)

Other Findings None Found

Comment: The following is a general list of compound classes considered to be Novel Psychoactive Substances included in the Gas Chromatographic screen. The detection of any particular compound is concentration-dependent. Please note that not all known compounds included in each specified class or heading are included. Some specific compounds outside these classes are also included. For a detailed list of all compounds and reporting limits included in this screen, please contact NMS Labs.

Substituted Phenethylamines, Opioid Analgesics, Substituted Cathinones, Pyrrolidinophenones, Piperazines, Tryptamines, Aminoindanes, and Benzofurans.

52324B Pyrrolidinophenone Confirmation (Qualitative), Blood

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

Results for sample 17001771-001 are continued on next page



**Sample ID** 17001771-001  
**Matrix** Blood  
**Patient Name** 8210B-POS  
**Patient ID** 8210B-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>Alpha PPP</p> <p>Synonym(s): alpha-Pyrrolidinopropiophenone</p> <p>Alpha PPP is a psychoactive stimulant of the pyrrolidinophenone series that is structurally related to pyrovalerone and alpha PVP. In general, psychoactive stimulants have temporary effects on the psychoneurotic system. In addition, they seem to have a much higher tendency to cause side effects such as paranoia, hallucinations, and schizophrenic or psychosis like symptoms.</p>	Positive	ng/mL	5.0	
<p>Alpha PBP</p> <p>Synonym(s): alpha-Pyrrolidinobutiophenone</p> <p>Alpha PBP is a psychoactive stimulant of the pyrrolidinophenone series that is structurally related to pyrovalerone and alpha PVP. In general, psychoactive stimulants have temporary effects on the psychoneurotic system. In addition, they seem to have a much higher tendency to cause side effects such as paranoia, hallucinations, and schizophrenic or psychosis like symptoms.</p>	Positive	ng/mL	5.0	
<p><b>52388B Hallucinogens and Stimulants Confirmation 2 (Qualitative), Blood</b></p> <p>Analysis by Gas Chromatography/Mass Spectrometry (GC/MS)</p>				
<p>2C-B</p> <p>Synonym(s): 4-Bromo-2,5-Dimethoxyphenethylamine</p> <p>2C-B is a Schedule I synthetic methoxylated phenethylamine derivative, first described in 1975 which has been abused for its euphoric and hallucinogenic properties since 1985. In 2010 its popularity was reportedly resurging as a result of the new designer drug movement and popularity of products sold as 'Bath Salts'. Effects include central nervous system stimulation, perceptual distortion, visual hallucinations, hypertension, tachycardia and hyperthermia.</p>	Positive	ng/mL	10	
<p>2C-B-FLY</p> <p>Synonym(s): 8-bromo-2,3,6,7-benzo-dihydro-difuran-ethylamine</p>	Positive	ng/mL	10	

Results for sample 17001771-001 are continued on next page



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Sample ID 17001771-001
Matrix Blood
Patient Name 8210B-POS
Patient ID 8210B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include 2C-B-FLY, 2C-C, 2C-E, 2C-I, 2C-P, and 2C-T-2 with detailed descriptions and results.

Results for sample 17001771-001 are continued on next page



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Matrix Blood
Patient Name 8210B-POS
Patient ID 8210B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Contains entries for 2C-T-2, 2C-T-4, 2C-T-7, 3,4-DMMC, and 4-MEC with their respective results and reporting limits.

Results for sample 17001771-001 are continued on next page



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Sample ID 17001771-001
Matrix Blood
Patient Name 8210B-POS
Patient ID 8210B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include 4-MEC, 4-MTA, 5-IAI, 5-MeO-DALT, and 5-MeO-DiPT with detailed descriptions of each substance.

Results for sample 17001771-001 are continued on next page



**Sample ID** 17001771-001  
**Matrix** Blood  
**Patient Name** 8210B-POS  
**Patient ID** 8210B-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>5-MeO-DIPT is a psychedelic/hallucinogenic tryptamine first synthesized in the early 2000's. It has been sold under the names 'Foxy' and 'Foxy Methoxy'. Its use has been linked to products sold as 'Legal High' or 'Bath Salts' for recreational purposes and is also present in some synthetic cannabinoid smoking mixtures. The drug is usually taken orally, but can also be insufflated or smoked.</p>				
<p>5-MeO-MIPT</p> <p>Synonym(s): 5-methoxy-N-methyl-N-isopropyltryptamine</p> <p>5-MeO-MIPT is a psychedelic/hallucinogenic tryptamine structurally similar to 5-MeO-DIPT, which is commonly referred to as 'foxy methoxy'. It has been identified in some 'bath salt' or 'research chemical' type products for euphoric and entheogenic effects. The drug is usually taken orally, but can also be insufflated or smoked.</p>	Positive	ng/mL	25	
<p>alpha-PVT</p> <p>Synonym(s): alpha-pyrrolidinopentiothiophenone</p> <p>Alpha-PVT is a stimulant type drug that is abused as a novel psychoactive substance that has been identified in some 'bath salt' or 'research chemical' type products. Effects may include dilated pupils, sweat, motor unrest, elevated pulse, high blood pressure, and hyperpyrexia. The drug is usually taken orally, but can also be insufflated or vaporized.</p>	Positive	ng/mL	10	
<p>APB</p> <p>Synonym(s): Aminopropyl benzofuran</p> <p>APB is a drug related to the phenethylamine and amphetamine classes that is abused as a novel psychoactive substance. It has been identified in some 'bath salt' or 'research chemical' type products for euphoric and empathogenic effects. Many products that include APB are marketed as 'BenzoFury'. The drug is usually taken orally, but can also be insufflated or vaporized. This technique can not differentiate isomers of APB.</p>	Positive	ng/mL	10	
<p>APDB</p> <p>Synonym(s): Aminopropyl dihydrobenzofuran</p>	Positive	ng/mL	5.0	

Results for sample 17001771-001 are continued on next page



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Sample ID 17001771-001
Matrix Blood
Patient Name 8210B-POS
Patient ID 8210B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include APDB, BDB, Brephedrone, DBZP, and Dimethylone with their respective results and reporting limits.

Results for sample 17001771-001 are continued on next page



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Sample ID 17001771-001
Matrix Blood
Patient Name 8210B-POS
Patient ID 8210B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include Dimethylone, DOB, DOM, Ethylamphetamine, and Ethylethcathinone.

Results for sample 17001771-001 are continued on next page



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Sample ID 17001771-001
Matrix Blood
Patient Name 8210B-POS
Patient ID 8210B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include Ethylethcathinone, Ethylphenidate, Fluoroamphetamine, Fluoromethamphetamine, and MAPB with detailed descriptions and results.

Results for sample 17001771-001 are continued on next page



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Sample ID 17001771-001
Matrix Blood
Patient Name 8210B-POS
Patient ID 8210B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include MBDB, MBZP, MDAI, and MDPBP with detailed descriptions and results.

Results for sample 17001771-001 are continued on next page



Sample ID 17001771-001  
Matrix Blood  
Patient Name 8210B-POS  
Patient ID 8210B-POS

Collect Dt/Tm Not Given  
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
MDPBP is a stimulant type drug that is abused as a novel psychoactive substance that has been identified in some 'bath salt' or 'research chemical' type products. The drug is usually taken orally, but can also be insufflated or vaporized.				
MeOPP Synonym(s): para-methoxyphenylpiperazine MeOPP is a piperazine type drug that is abused as a novel psychoactive substance that has been identified in some 'bath salt' or 'research chemical' type products. MeOPP is reported to not produce prominent stimulant effects, but is instead said to be relaxing. The drug is usually taken orally, but can also be insufflated or vaporized.	Positive	ng/mL	20	
Methiopropamine Methiopropamine is structurally related to methamphetamine that is abused as a novel psychoactive substance. It has been identified in some 'bath salt' or 'research chemical' type products for the purposes of recreational abuse. Methiopropamine acts as an inhibitor of dopamine and norepinephrine, and may have stimulating effects on the central nervous system. The drug is usually taken orally, but can also be insufflated or smoked.	Positive	ng/mL	5.0	
PMMA Synonym(s): para-methoxy-N-methylamphetamine PMMA is a serotonergic drug of the amphetamine class. It is a potent serotonergic stimulant drug and produces significant toxic effects at recreational doses. Adverse effects are linked to the potent serotonergic properties of the drug and include hyperpyrexia, tachycardia, agitation, shallow labored breathing and hypertension. The drug is usually taken orally, but can also be insufflated or vaporized.	Positive	ng/mL	5.0	

**52389B Phenethylamines Confirmation 2 (Qualitative), Blood**

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

PMA	Positive	ng/mL	10	
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Results for sample 17001771-001 are continued on next page



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**Sample ID** 17001771-001  
**Matrix** Blood  
**Patient Name** 8210B-POS  
**Patient ID** 8210B-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Synonym(s): para-methoxyamphetamine  PMA is a serotonergic drug of the amphetamine class. It is a potent serotonergic stimulant drug and produces significant toxic effects at recreational doses. Adverse effects are linked to the potent serotonergic properties of the drug and include hyperpyrexia, tachycardia, agitation, shallow labored breathing and hypertension.				
<b>Cathinone</b>  Synonym(s): Khat  Cathinone is a central nervous system stimulant present in the North African shrub Catha Edulis. The dried plant material is known as Khat.	Positive	ng/mL	10	
<b>Methcathinone</b>  Methcathinone, a CNS-stimulant, is similar to methamphetamine in that it can reduce fatigue and block hunger. The drug can also trigger impulsive, erratic behavior by increasing the action of two neurotransmitters, norepinephrine and dopamine. At higher dosages, or with chronic use, feelings of heightened confidence, arousal, paranoia, irritability, and severe depression are exhibited. Physical side effects include loss of appetite, profuse sweating, dehydration, elevated heart rate and body temperature, and uncontrolled shaking. Psychological effects include anxiety and irritability. Tolerance often develops rapidly as does dependence. Early withdrawal symptoms of anxiety and profuse sweating can precede convulsions, hallucinations, and severe depression.	Positive	ng/mL	10	
<b>DMA</b>  Synonym(s): N,N-Dimethylamphetamine  DMA is a CNS stimulant of the phenethylamine class. It is often an impurity in the synthesis of methamphetamine. Its use has been linked to the popular 'Designer Drug' movement and may be present in products sold as 'Legal High' or 'Bath Salts' for recreational purposes.	Positive	ng/mL	10	
<b>2C-H</b>  Synonym(s): 2,5-dimethoxy-phenethylamine	Positive	ng/mL	10	

Results for sample 17001771-001 are continued on next page



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Sample ID 17001771-001
Matrix Blood
Patient Name 8210B-POS
Patient ID 8210B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include 2C-H, 2C-N, 5-MeO-DMT, DET, and DMT with their respective results and descriptions.

Results for sample 17001771-001 are continued on next page



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**Sample ID** 17001771-001  
**Matrix** Blood  
**Patient Name** 8210B-POS  
**Patient ID** 8210B-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>DMT (N,N-dimethyltryptamine) is a naturally occurring tryptamine with stimulant and psychedelic/hallucinogenic properties when ingested. Its use has been linked to the popular 'Designer Drug' movement and may be present in products sold as 'Legal High' or 'Bath Salts' for recreational purposes. The drug is usually taken orally, but can also be insufflated or smoked. Endogenous concentrations in serum are less than 1 ng/mL. Following ingestion of 29mg of DMT in an herbal tea, plasma concentrations peaked at 16ng/mL (12-26ng/mL). DMT is a Federal Schedule I drug but its use for sacramental purposes is permitted.</p>				
<p>Methedrone</p>	<p>Positive</p>	<p>ng/mL</p>	<p>10</p>	
<p>Methedrone is a beta keto amphetamine or Cathinone stimulant entactogenic drug first reported in 2010. Its use has been linked to the popular 'Designer Drug' movement and may be present in products sold as 'Legal High' or 'Bath Salts' for recreational purposes. The drug is usually taken orally, but can also be insufflated or vaporized.</p>				
<p>Methedrone is chemically related to mephedrone.</p>				
<p><b>52390B Pyrrolidinophenone Confirmation, Blood</b></p>				
<p>Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)</p>				
<p>MDPPP</p>	<p>50</p>	<p>ng/mL</p>	<p>5.0</p>	
<p>Synonym(s): 3',4'-Methylenedioxy-alpha-pyrrolidinopropiophenone</p>				
<p>MDPPP is a psychoactive stimulant of the pyrrolidinophenone series that is structurally related to pyrovalerone and alpha PVP. The compound has been sold on the internet as a novel psychoactive substance for the intention of recreational drug use in the form of tablets or powders to be taken orally or insufflated, respectively. It is abused for its perceived 'ecstasy like' effects of euphoria, excitement and alertness. It is claimed that compounds</p>				

Results for sample 17001771-001 are continued on next page



**Sample ID** 17001771-001  
**Matrix** Blood  
**Patient Name** 8210B-POS  
**Patient ID** 8210B-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>of the pyrrolidinophenone series improve productivity, wakefulness, motivation, locomotion and endurance. In general, psychoactive stimulants have temporary effects on the psychoneurotic system. In addition, they seem to have a much higher tendency to cause side effects such as paranoia, hallucinations, and schizophrenic or psychosis like symptoms.</p>				
<p><b>MeOPPP</b></p> <p>Synonym(s): 4'-methoxy- alpha-Pyrrolidinopropiophenone</p> <p>MeOPPP is a psychoactive stimulant of the pyrrolidinophenone series that is structurally related to pyrovalerone and alpha PVP. The compound has been sold on the internet as a novel psychoactive substance for the intention of recreational drug use in the form of tablets or powders to be taken orally or insufflated, respectively. It is abused for its perceived 'ecstasy like' effects of euphoria, excitement and alertness. It is claimed that compounds of the pyrrolidinophenone series improve productivity, wakefulness, motivation, locomotion and endurance. In general, psychoactive stimulants have temporary effects on the psychoneurotic system. In addition, they seem to have a much higher tendency to cause side effects such as paranoia, hallucinations, and schizophrenic or psychosis like symptoms.</p>	50	ng/mL	5.0	
<p><b>Pyrovalerone</b></p> <p>Pyrovalerone acts as a stimulant as a NDRI (norepinephrine-dopamine reuptake inhibitor) and is used by some countries for the clinical treatment of chronic fatigue and lethargy. More commonly, pyrovalerone is encountered as a component in 'bath salt' products for recreational drug abuse. Side effects of pyrovalerone include loss of appetite, anxiety, muscle tremors, tachycardia, and hypertension.</p>	50	ng/mL	5.0	
<p><b>Naphyrone</b></p> <p>Naphyrone is a stimulant characterized as a novel psychoactive substance; it has been found as a component of 'bath salt' products for recreational drug abuse. In general, psychoactive stimulants have temporary effects on the psychoneurotic system. In addition, they seem to have a much higher tendency to cause side effects such as paranoia, hallucinations, and schizophrenic or psychosis like symptoms.</p>	50	ng/mL	5.0	

Results for sample 17001771-001 are continued on next page



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**Sample ID** 17001771-001  
**Matrix** Blood  
**Patient Name** 8210B-POS  
**Patient ID** 8210B-POS

**Collect Dt/Tm** Not Given  
**Source** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>MPBP</p> <p>Synonym(s): 4'-methyl- alpha-Pyrrolidinobutiophenone</p> <p>MPBP is a psychoactive stimulant of the pyrrolidinophenone series that is structurally related to pyrovalerone and alpha PVP. The compound has been sold on the internet as a novel psychoactive substance for the intention of recreational drug use in the form of tablets or powders to be taken orally or insufflated, respectively. It is abused for its perceived 'ecstasy like' effects of euphoria, excitement and alertness. It is claimed that compounds of the pyrrolidinophenone series improve productivity, wakefulness, motivation, locomotion and endurance. In general, psychoactive stimulants have temporary effects on the psychoneurotic system. In addition, they seem to have a much higher tendency to cause side effects such as paranoia, hallucinations, and schizophrenic or psychosis like symptoms.</p> <p>No reference serum concentration data for this compound have been reported.</p> <p>Some pyrrolidinophenones are known to have limited stability in biological specimens related to pH, collection tube, and storage temperature. Results are those obtained at the time of analysis. Negative results should be interpreted with caution.</p>	50	ng/mL	5.0	