



NMS Labs

CONFIDENTIAL

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Toxicology Report

Report Issued 07/12/2022 15:10

To: **147837**
WMU School of Medicine
300 Portage Street

Kalamazoo, MI 49007

Patient Name Nagle, Joseph M
Patient ID 220617-122
Chain 220617-122
DOB 07/23/1999
Sex Male
Workorder 22216784

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Positive Findings:

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Matrix Source</u>
Delta-9 Carboxy THC	57	ng/mL	001 - Iliac Blood
Delta-9 THC	16	ng/mL	001 - Iliac Blood
Cocaine / Metabolites	Presump Pos	ng/mL	004 - Urine
Cannabinoids	Presump Pos	ng/mL	004 - Urine

See Detailed Findings section for additional information

Agency Case Number: W22-0791

Testing Requested:

<u>Test</u>	<u>Test Name</u>
8041B	Postmortem, Basic w/Vitreous Alcohol Confirmation, Blood (Forensic)
8050U	Postmortem, Urine Screen Add-On (6-MAM Quantification only) (Forensic)

Specimens Received:

<u>ID</u>	<u>Tube/Container</u>	<u>Volume/ Mass</u>	<u>Collection Date/Time</u>	<u>Matrix Source</u>	<u>Labeled As</u>
001	Clear Top PT with Preservative	7.75 mL	06/17/2022 08:20	Iliac Blood	220617-122
002	Clear Top PT with Preservative	6.75 mL	06/17/2022 08:20	Iliac Blood	220617-122
003	Red Stopper Glass Tube	2 mL	06/17/2022 08:20	Vitreous Fluid	220617-122
004	Black Cap Plastic Container	18 mL	06/17/2022 08:20	Urine	220617-122

All sample volumes/weights are approximations.

Specimens received on 06/18/2022.

Detailed Findings:

Analysis and Comments	Result	Units	Rpt. Limit	Specimen Source	Analysis By
Delta-9 Carboxy THC	57	ng/mL	5.0	001 - Iliac Blood	LC-MS/MS
Delta-9 THC	16	ng/mL	0.50	001 - Iliac Blood	LC-MS/MS
Cocaine / Metabolites	Presump Pos	ng/mL	150	004 - Urine	EIA
This test is an unconfirmed screen. Confirmation by a more definitive technique such as GC/MS is recommended.					
Cannabinoids	Presump Pos	ng/mL	50	004 - Urine	EIA
This test is an unconfirmed screen. Confirmation by a more definitive technique such as GC/MS is recommended.					

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:

- Delta-9 Carboxy THC (Inactive Metabolite) - Iliac Blood:
Delta-9 THC is the principle psychoactive ingredient of marijuana/hashish. Delta-9 carboxy THC (THCC) is the inactive metabolite of THC. The usual peak concentrations in serum for 1.75% or 3.55% THC marijuana cigarettes are 10-101 ng/mL attained 32 to 240 minutes after beginning smoking, with a slow decline thereafter. The ratio of whole blood concentration to plasma concentration is unknown for this analyte. THCC may be detected for up to one day or more in blood. Both delta-9-THC and THCC may be present substantially longer in chronic users. THCC is usually not detectable after passive inhalation.
- Delta-9 THC (Active Ingredient of Marijuana) - Iliac Blood:
Delta-9 THC is the principle psychoactive ingredient of marijuana (cannabis, hashish). It is also the active component of the prescription medication Marinol®. Marijuana use causes relaxation, distorted perception, euphoria and feelings of well being, along with confusion, dizziness, somnolence, ataxia, speech difficulties, lethargy and muscular weakness.

After smoking a user-preferred 300 mcg/kg dose average plasma THC concentrations at 35 minutes were reported at 16.1 (range 4.7-30.9) ng/mL, and had declined to 1.5 (range 0.4-3.2) ng/mL after 190 minutes. Usual peak levels in serum for 1.75% or 3.55% THC marijuana cigarettes: 50-270 ng/mL at 6 to 9 minutes after beginning smoking, decreasing to less than 5 ng/mL by 2 hrs. Whole blood THC concentrations are typically half those in a corresponding plasma sample.

Sample Comments:

001 Physician/Pathologist Name: Jared Brooks, 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 22216784 was electronically signed on 07/12/2022 14:32 by:



Kristopher W. Graf, M.S., D-ABFT-FT
Certifying Scientist

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. The Reporting Limit listed for each compound represents the lowest concentration of the compound that will be reported as being positive. If the compound is listed as None Detected, it is not present above the Reporting Limit. Please refer to the Positive Findings section of the report for those compounds that were identified as being present.

Test 50014B - Cocaine and Metabolites Confirmation, Blood - Iliac Blood

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

<u>Analyte</u>	<u>Rpt. Limit</u>	<u>Analyte</u>	<u>Rpt. Limit</u>
Benzoylecgonine	50 ng/mL	Cocaine	20 ng/mL
Cocaethylene	20 ng/mL		

Test 52198B - Cannabinoids Confirmation, Blood - Iliac Blood

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

<u>Analyte</u>	<u>Rpt. Limit</u>	<u>Analyte</u>	<u>Rpt. Limit</u>
11-Hydroxy Delta-9 THC	2.0 ng/mL	Delta-9 THC	0.50 ng/mL
Delta-9 Carboxy THC	5.0 ng/mL		

Test 8041B - Postmortem, Basic w/Vitreous Alcohol Confirmation, Blood (Forensic) - Iliac Blood

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

<u>Analyte</u>	<u>Rpt. Limit</u>	<u>Analyte</u>	<u>Rpt. Limit</u>
Amphetamines	20 ng/mL	Fentanyl / Acetyl Fentanyl	0.50 ng/mL
Barbiturates	0.040 mcg/mL	Methadone / Metabolite	25 ng/mL
Benzodiazepines	100 ng/mL	Methamphetamine / MDMA	20 ng/mL
Buprenorphine / Metabolite	0.50 ng/mL	Opiates	20 ng/mL
Cannabinoids	10 ng/mL	Oxycodone / Oxymorphone	10 ng/mL
Cocaine / Metabolites	20 ng/mL	Phencyclidine	10 ng/mL

-Analysis by Headspace Gas Chromatography (GC) for:

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

Test 8050U - Postmortem, Urine Screen Add-On (6-MAM Quantification only) (Forensic) - Urine

-Analysis by Enzyme Immunoassay (EIA) for:

<u>Analyte</u>	<u>Rpt. Limit</u>	<u>Analyte</u>	<u>Rpt. Limit</u>
Amphetamines	500 ng/mL	Fentanyl / Metabolite	2.0 ng/mL
Barbiturates	0.30 mcg/mL	Methadone / Metabolite	300 ng/mL
Benzodiazepines	50 ng/mL	Opiates	300 ng/mL
Cannabinoids	50 ng/mL	Oxycodone / Oxymorphone	100 ng/mL
Cocaine / Metabolites	150 ng/mL	Phencyclidine	25 ng/mL