



STATE OF MICHIGAN  
DEPARTMENT OF STATE POLICE  
FORENSIC SCIENCE DIVISION

GRETCHEN WHITMER  
GOVERNOR

COL. JOSEPH M. GASPER  
DIRECTOR

August 31, 2022

Criminal Justice Partners:

The Michigan State Police Forensic Science Division (MSP/FSD) is committed to providing the highest standard of forensic services to the criminal justice community. The MSP/FSD is accredited in toxicology and analyzes approximately 20,000 samples annually for the presence of alcohol and/or drugs pursuant to a forensic examination request. The men and women who work in the MSP/FSD strive to provide laboratory testing services that are timely, transparent, and scientifically accurate.

One drug in the unit's scope of analysis is tetrahydrocannabinol (THC). THC is one of more than 100 cannabinoids in the *cannabis sativa* plant and is the primary constituent for the psychoactive properties of marijuana. Cannabidiol (CBD), structurally similar to THC, is one of the many cannabinoids present in the *cannabis sativa* plant that is reported to have no psychoactive properties. Since March 28, 2019, CBD has been legal under Michigan law.

On August 22, 2022, the MSP/FSD halted the processing of samples using the current THC confirmation assay due to a concern that CBD\* may be converted to THC during laboratory analysis, which could lead to inaccurate test results. Subsequent quality evaluations and review led to the discovery that the specific laboratory confirmatory method in use by the Toxicology Unit for THC may cause 1) THC to be identified when the sample contains THC, 2) THC to be identified when the sample contains a combination of THC and CBD, or 3) THC to be identified when the sample contains CBD alone.

Analysis of biological samples for the presence of drugs consists of two primary steps: sample preparation and instrumental analysis. One step within the sample preparation method involves the addition of chemicals to stabilize the drugs of interest for subsequent instrumental analysis. Due to the structural similarity between CBD and THC, the stabilizing chemicals may have the unintended consequence of converting CBD to THC.

With this discovery, the MSP/FSD immediately halted the processing of samples using the THC confirmatory method and began working to institute another validated method of testing to ensure accuracy. Most immediately our concern was for the impact this finding may have on active legal proceedings where an individual allegedly used CBD alone and no other intoxicating substances. To mitigate this risk, on August 25, 2022, the laboratory shared the limited information we had with the Prosecuting Attorneys Association of Michigan for dissemination to prosecutors statewide.

After further review, we now believe that cases potentially impacted by this finding include those occurring on or after March 28, 2019, where the alleged violation is based on the finding of THC alone and there is insufficient evidence of impairment, intoxication, or recent use of marijuana to otherwise support the charged offense. The department has identified approximately 3,250 THC confirmed cases during this time period that did not have other drugs within the scope of analysis and/or alcohol detected above the 0.08% legal threshold. The MSP/FSD will be sharing these cases directly with the involved prosecutor as soon as possible so additional review can be done as to the potential impact to these cases.

*\*The metabolite of CBD, 7-COOH-CBD (7-carboxy-cannabidiol), may be converted to a metabolite of THC, COOH-THC (carboxy-tetrahydrocannabinol), using the current laboratory method. When referencing CBD conversion to THC throughout this document, it includes those cases in which 7-COOH-CBD may have been converted to COOH-THC.*

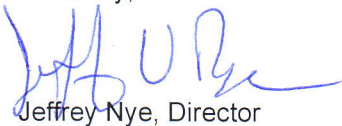
While the laboratory is not currently confirming the presence of THC in submitted samples, a contract will be established with a private, accredited laboratory for those services. We are also actively validating a new cannabinoid confirmatory method that will include THC. This validation will ensure similar issues with drug interference will not happen in the future. In the interim, police officers should continue to obtain biological samples and submit them as normal to the MSP/FSD. It should also be noted only THC confirmed results are in question and testing for other drugs is continuing within the Toxicology Unit as normal.

The MSP/FSD maintains toxicology blood samples for at least two years from the time the sample is taken. Until further notice, the laboratory will retain all toxicology blood tubes so that future retesting may be conducted, if necessary.

If you currently have a positive THC confirmation report issued by the laboratory, and you do not have other evidence of impairment, such as driving behavior, individual observations, results of Standardized Field Sobriety Tests (SFSTs), Drug Recognition Expert (DRE) evaluations, or other indicators of THC, please consider the alternative explanation that the sample may be positive for CBD alone.

We have already self-reported this matter to our accrediting body, ANAB (ANSI National Accreditation Board), and requested an independent review. It is my hope the actions we have taken in response to this issue demonstrate to you our timely, transparent, and ethical response to an emerging technical issue.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jeffrey Nye".

Jeffrey Nye, Director  
Forensic Science Division  
Michigan State Police