WHITE PAPER TruNarc Analyzer

## Considerations when scanning for Fentanyl and Methamphetamine

## Fentanyl and methamphetamine scans:

Fentanyl and methamphetamine are two illicit drugs of interest to law enforcement. When the Thermo Scientific™ TruNarc™ analyzer is used in direct (point-and-shoot) mode, these two drugs can be routinely differentiated and identified. However, if the TruNarc H-Kit method is used by the operator, the instrument will give an identification of "Fentanyl Compound and/or Methamphetamine" because of the extreme similarity of their H-Kit spectra (see figure on back page).

In the past, the scanning of fentanyl or methamphetamine using the TruNarc analyzer in direct (point and shoot) mode sometimes produced a "Fentanyl Compound and/ or Methamphetamine" identification screen that required additional steps to be taken by the operator to ensure accurate results. To prevent "Fentanyl Compound and/or Methamphetamine" results from occurring in direct mode, beginning with software version 1.9.0, corresponding library spectra for H-kit and direct scans have been completely separated in the software. Consequently, in order to enhance the performance of the instrument, the operator is instructed to select either the direct scan or H-Kit before performing any test.









In addition, version 1.9.0 TruNarc Administrative software (and any future versions) allows a user the option to completely turn off the ability to perform H-kit scans with the instrument, thus eliminating the possibility of the Fentanyl Compound/ Methamphetamine result from occurring in any situation.

## **Liquid methamphetamine scans:**

In the case of liquid methamphetamine, it is recommended that a user always attempt a direct scan after allowing the liquid to completely evaporate. This can be done by placing the liquid on a surface such as paper or glass until evaporation occurs and crystals are formed. Scanning these crystals using the instrument's direct mode results in the correct identification of methamphetamine.

## **Recommendations:**

In general, it is recommended that a user always attempt a direct scan first. Scans should be done at multiple points on the sample to address inconsistent composition. If direct scans fail to provide an identification, then an H-Kit scan can be attempted. In all instances, it is recommended that instrument results be followed with a secondary analysis technique, especially if the instrument analysis results are not consistent with what is known about the sample and all other evidence in the case.



