

# RECOVERED CHEMICAL MATERIEL DIRECTORATE FACT SHEET

## **RAMAN SPECTROMETER**



The Raman Spectrometer compares the unique chemical signature it produces with its laser light to its computer database, allowing operators to identify the contents.

The Raman Spectrometer helps identify the contents of Chemical Agent Identification Set (CAIS) items, which are glass bottles containing chemical agent once used to train Soldiers.

The Raman Spectrometer rapidly obtains detailed information about the CAIS item contents. Responder personnel and stakeholders evaluate the data to identify the contents, reducing the risk to the public and emergency responders.



#### Step 1

Place the fiber optic probe near the glass wall of the CAIS item, directing a laser light at the item's contents.



### Step 2

Light passes through the glass wall and interacts with the contents of the CAIS item, producing a unique spectrum signature of the chemicals inside.



### Step 3

Technical experts look for distinctive chemical signatures from the spectrum.



### Step 4

Analysis of the information enables identification of the contents.

