

# SPECTRAL EVOLUTION

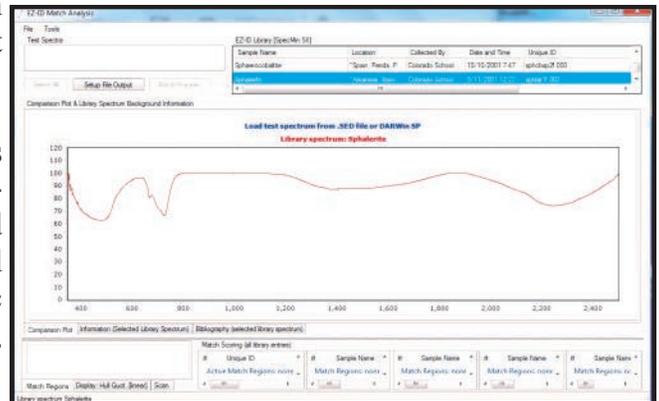
## Zinc Exploration

The oreXpress portable NIR spectrometer with EZ-ID mineral identification software can be used in the field by a geologist to identify sphalerite the primary ore for zinc. It is perfect for mineral mapping and identification to save on drill hole costs by eliminating unnecessary drill holes. It can also be used during core shack analysis to screen samples for assaying.



The oreXpress mobile mineral analyzer is lightweight and easy to use and collects high resolution/low noise spectra with autoexposure and auto-dark correction. Equipped with EZ-ID *Sphalerite is the main ore for zinc.* mineral identification software, it matches unknown mineral spectra against two libraries to provide a best match for mineral identification.

For zinc exploration, the oreXpress with EZ-ID has library spectra for sphalerite and the secondary minerals associated with zinc: willemite, smithsonite and hemimorphite. Zinc is an important non-ferrous metal used in galvanizing steel to protect it from rust. Zinc is also used in cosmetics, plastics, rubber, soaps, paints, fertilizers and batteries.



*A library spectrum of a known sphalerite sample.*

For sphalerite, there are twelve samples in the libraries available with EZ-ID. The spectra all show broad absorption features between 400 and 600nm, 600 and 800nm, 1200 to 1800nm and 2000 to 2500nm. There are also three spectra for smithsonite.

In addition to matching against library samples, EZ-ID allows geologists to build their own libraries while scanning samples and include all the metadata relevant to the sample such as location, operator, sample type, color, and other descriptive details. The result is a library of known samples from a specific project/library.



*A sample of smithsonite from the libraries available with EZ-ID.*

oreXpress and EZ-ID software are trademarks of Spectral Evolution, Inc.

1 Canal Street ♦ Unit B1  
Lawrence, MA 01840 USA  
Tel: 978 687-1833 ♦ Fax: 978 945-0372  
Email: [sales@spectralevolution.com](mailto:sales@spectralevolution.com)  
[www.spectralevolution.com](http://www.spectralevolution.com)

