

EZ-ID provides geologists, geoscientists, and geometallurgists with the tools to identify minerals, create more accurate mineral maps and vector alteration to mineralization



Mineral identification in seconds !!!

EZ-ID Mineral Identification Software & Mineral Libraries

Porphyry Alteration Minerals

Sericite/Muscovite, Chlorite, Biotite, Anhydrite, Epidote, Illite, Kaolinite, Alunite, Calcite, Smectite

Porphyry Leach Cap Minerals

Jarosite, Alunite, Pyrophyllite, Diaspore, Zunyite, Dickite

Epithermal—Low Sulfidation Alteration Minerals

Illite, Smectite, Montmorillonite, Kaolinite, Calcite, Buddingtonite, Chlorite, Epidote

Epithermal—High Sulfidation Alteration Minerals

Alunite, Pyrophyllite, Kaolinite, Illite, Chlorite, Diaspore, Dickite, Smectite, Montmorillonite

IOCG Alteration Minerals

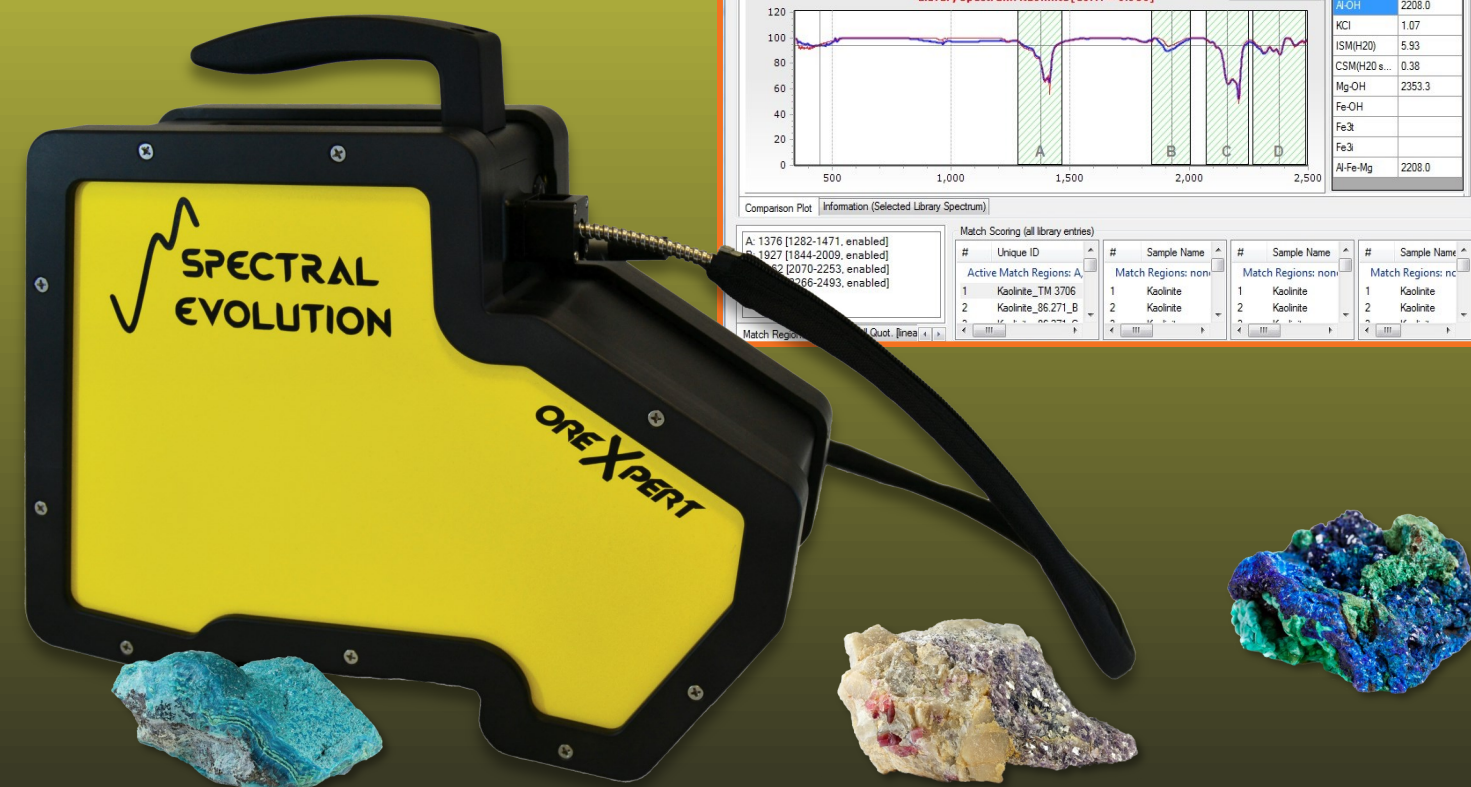
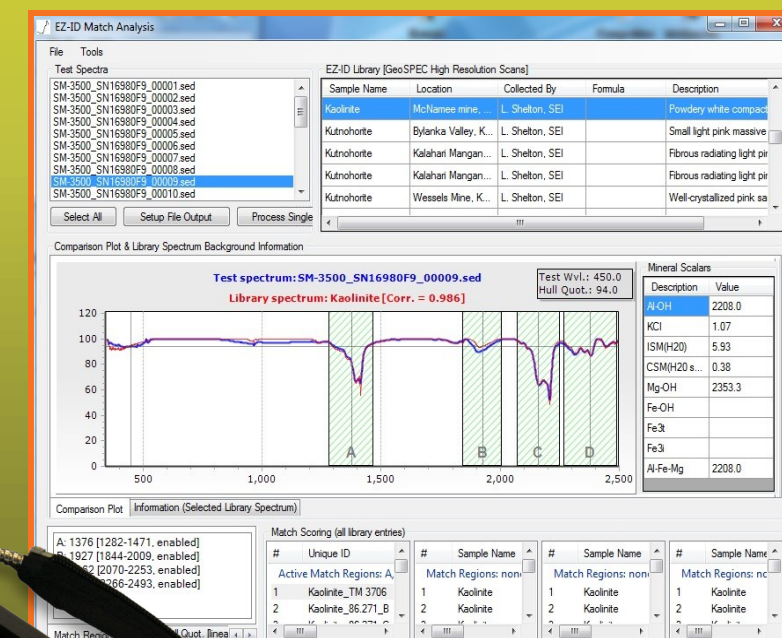
Albite, Sericite/Muscovite, Biotite, Calcite, Chlorite, Epidote, Phlogopite

Rare Earth Minerals

Apatite, Monazite, Bastnaesite, Parasite, Xenotime

Uranium

Uraninite, Sericite, Dickite, Chlorite, Kaolinite, Illite, Pyritre, Chalcopyrite



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Quickly Identify Your Target Mineral with EZ-ID™ Software and Spectral Evolution Field Spectrometers

Mineral identification has never been **faster, easier,** or more **accurate** than with EZ-ID software from **Spectral Evolution**. EZ-ID provides mineral identification capabilities for the **oreXpress, oreXplorer** and **oreXpert** field portable spectrometers for **mining exploration, core logging, alteration mapping** or **academic research**.

You can perform **mineral identification in seconds** by matching your target minerals against the latest USGS library of 266 minerals and 466 spectra. The optional **SPECMIn** and **GeoSPEC high resolution libraries** provide an additional 2216 scans for fast identification of over 731 minerals. EZ-ID instantly compares the target spectra versus the library, allowing you to select regions of interest for closer examination. It also provides the most likely matches with weighted scores and offers **scalars** to enhance the geologist's understanding of **crystallinity changes, alteration pattern shifts** and geochemical conditions. A batch processing capability allows a geologist to select target files, along with their associated information and rankings, and import that data into a Microsoft Excel spreadsheet, a comma delimited file, or a tab delimited file, for **geological modeling** or **mine planning**. EZ-ID software can be used on unknown samples found on outcrops, in pits, hand samples, cores, or anywhere mineral identification is performed.

EZ-ID features include:

- ◆ Fast and accurate **identification of unknown minerals** to known library samples
- ◆ Easy-to-use—just collect your scan using the oreXpress, oreXplorer or **ultra-high resolution oreXpert** and see results in real time.
- ◆ Scalars provide a geologist with a better understanding of **mineral formation conditions**.
- ◆ Software provides a weighted score for best matches.
- ◆ Save **spectral match regions** of interest for comparisons when looking for similar minerals.
- ◆ The **Library Builder** allows you to create your own custom library of minerals.
- ◆ Optional **conversion of ASD files** for use with EZ-ID—save your existing libraries and databases.
- ◆ EZ-ID works through the DARWin SP Data Acquisition software interface for all Spectral Evolution spectrometers and spectroradiometers.

EZ-ID with spectra

Target scans

Library in use

Batch mode

Library spectra—red
Target spectra—blue

Match regions location

Match regions

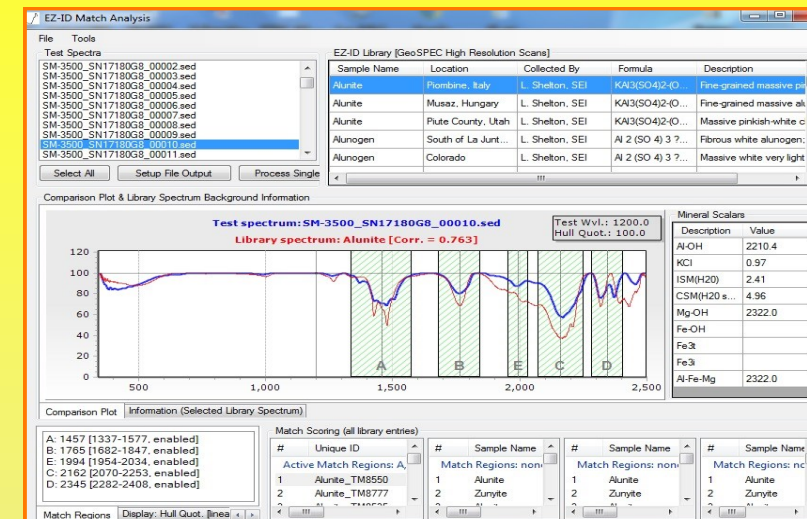
Scalars

Description	Value
Al-OH	2208.0
KCl	1.07
ISM(H2O)	5.93
CSM(H2O s...)	0.38
Mg-OH	2353.3
Fe-OH	
Fe3+	
Al-Fe-Mg	2208.0

Library matches & scores

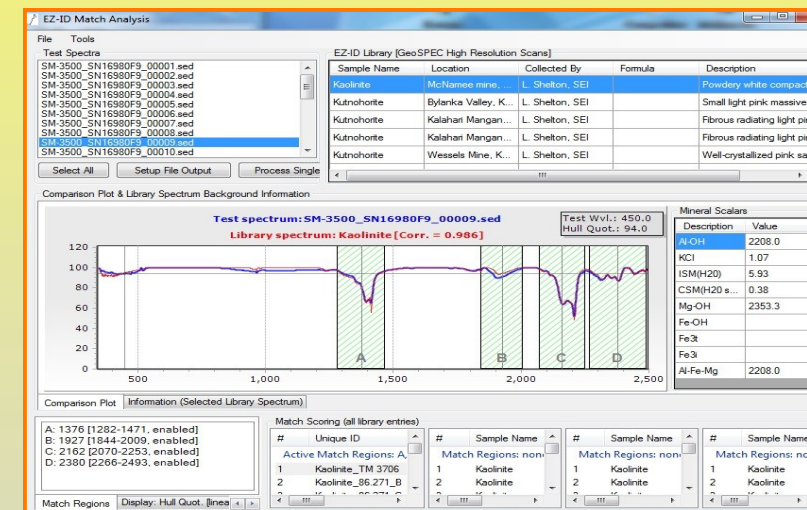
Unique ID	#	Sample Name	#	Sample Name	#	Sample Name
A: 1376 [1282-1471, enabled]						
B: 1927 [1844-2009, enabled]						
C: 2162 [2070-2253, enabled]						
D: 2380 [2266-2493, enabled]						
Active Match Regions: A						
1	1	Kaolinite_TM 3706	1	Kaolinite	1	Kaolinite
2	2	Kaolinite_86.271_B	2	Kaolinite	2	Kaolinite

Sample scans identified with EZ-ID



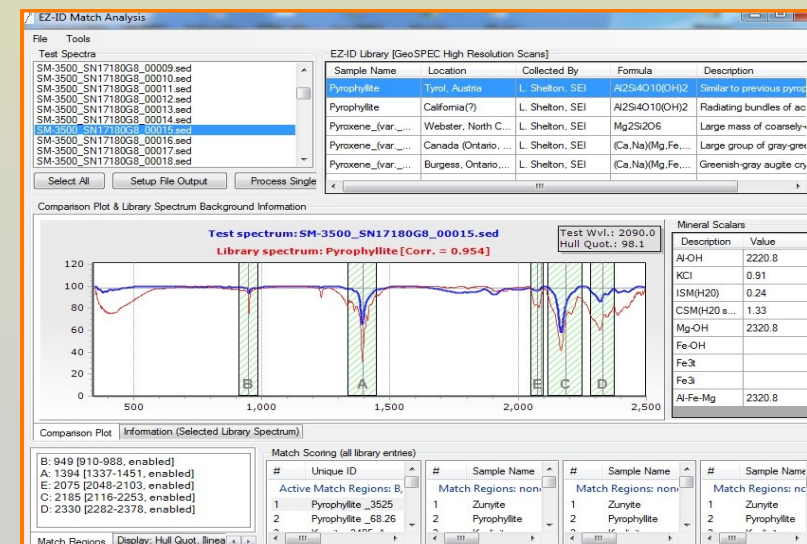
Alunite

Alunite identified by EZ-ID with a match to the **SPECMIn library**, available along with the USGS and Colorado School of Mines libraries. The sample shows the characteristic absorption features near 1440, 1475, 1760, 2165/2206, 2320 nm.



Kaolinite

Kaolinite (a clay) identified by the **GeoSPEC library**, showing characteristic absorption features at 960, 1400/1412, 2100/2206, 2310, 2350, and 2380nm. In this sample there is some iron in the mix as represented by the large feature around 400-500 nm and a large water feature at 1900nm.



Pyrophyllite

This sample of pyrophyllite, identified by the **GeoSPEC library**, shows the characteristic features at 1396, 2066/2078, 2168, and 2320 nm. Using the multiple scoring column feature in EZ-ID, the analysis is fine-tuned by focusing on different combinations of features, all in one display.

