



PRESS RELEASE

Analyzing and measuring bitumen in oil sands using the oreXpress with EZ-ID mineral identification software.

Lawrence, MA – May 21, 2014 – The oreXpress™ spectrometer with EZ-ID™ software is a very useful tool for exploration of oil sands and analysis of bitumen content. With the oreXpress, field analysis can be used to gauge the economic viability of a potential discovery.

OreXpress offers a geologist the opportunity to scan and identify bitumen content in oil sands quickly and with no sample prep. Deposits are not homogeneous but include variability in clay, bitumen, and fines, that impact discovery and recovery. The correlation of bitumen concentration can be gauged from oil absorption features in the spectra. Key features for water, clays and oil occur at 1400nm, 1720nm, 1940nm, 2200nm, and 2310nm. Current analysis methods are costly and time-consuming and typically result in destruction of the sample. An assessment of total bitumen content (TBC) on-site can deliver a tremendous asset.

. The oreXpress spectrometer delivers:

- Rapid data/spectra collection in the field
- High signal to noise ratio for improved reflectance values
- Fast start-up and use with no optimization step required between scans
- Sturdy construction to handle field conditions
- Reliability with no moving optics and a robust metal clad fiber optic cable connector with easy-disconnect fiber
- A rugged and reliable mineral contact probe for single click field measurements, use in core logging shacks, and with chip trays

oreXpress with EZ-ID matches your unknown target mineral against a known spectral library. EZ-ID is available with the USGS library and the SpecMIN™ library from Spectral International. In addition to these libraries, the Custom Library Builder module allows you to quickly create your own application and location specific library of spectra for oil sands and bitumen.

SpecMIN includes an extensive and dynamic library of over 494 infrared active mineral species with nearly 4,000 spectra. This unique spectral library includes a minimum of two different samples per mineral.

EZ-ID features:

- Fast and accurate identification of an unknown mineral to a known library sample
- Ease of use – just collect a target scan and see immediate match results in real time on your laptop
- Simple, consistent user interface
- Include or exclude spectral regions of interest for optimal results
- Fast scanning for optimum field work or core shack logging

For more information:

http://www.spectralevolution.com/applications_bitumen_oil_sands.html

About SPECTRAL EVOLUTION

Established in 2004, SPECTRAL EVOLUTION is a leading manufacturer of laboratory and handheld portable spectrometers, spectroradiometers and spectrophotometers. SPECTRAL EVOLUTION spectrometers are used worldwide for many mission-critical lab and field applications in mining, remote sensing, vegetative studies, ground truthing, environmental and climate studies, developing satellite calibrations, and more, due to their reliable, robust, rugged design and user-friendly one-touch features.

EZ-ID and oreXpress are trademarks of SPECTRAL EVOLUTION.

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