

SPECTRAL EVOLUTION

Spectrometers for Mining



oreXpert

oreXplorer

oreXpress

	oreXpert	oreXplorer	oreXpress
Spectral Range	350-2500nm	350-2500nm	350-2500nm
Spectral Resolution	1.5nm @ 700nm 3.0nm @ 1500nm 3.8nm @ 2100nm	2.7nm @ 700nm 5.5nm @ 1500nm 5.8nm @ 2100nm	2.8nm @ 700nm 8nm @ 1500nm 6nm @ 2100nm
Si Photodiode Detector	1024 element TE-cooled Si array (350-1000nm)	1024 element Si array (350-1000nm)	512 element enhanced Si array (350-1000nm)
InGaAs Photodiode Detectors (TE-cooled)	512 element InGaAs array (1000-1630nm) 512 element extended InGaAs array (1630-2500nm)	512 element InGaAs array (1000-1630nm) 512 element extended InGaAs array (1630-2500nm)	256 element extended wavelength InGaAs array (1000-1900nm) 256 element extended InGaAs array (1900-2500nm)
Sensitivity Noise Equivalence Radiance (NER)	0.8x10 ⁹ W/cm ² /nm/sr@400nm 0.3x10 ⁹ W/cm ² /nm/sr@1500nm 5.8x10 ⁹ W/cm ² /nm/sr@2100nm	0.3x10 ⁹ W/cm ² /nm/sr@400nm 0.1x10 ⁹ W/cm ² /nm/sr@1500nm 2.5x10 ⁹ W/cm ² /nm/sr@2100nm	0.8x10 ⁹ W/cm ² /nm/sr@400nm 1.2x10 ⁹ W/cm ² /nm/sr@1500nm 1.8x10 ⁹ W/cm ² /nm/sr@2100nm

oreXpert—highest resolution field spectrometer with high sensitivity, accurate scans for mineral identification and analysis. Crucial for seeing additional features and unmixing different minerals from samples.

oreXplorer—higher resolution/high sensitivity for identifying hard to unmix minerals with similar features

oreXpress—quick reliable mineral analysis with a standard resolution of 3nm.

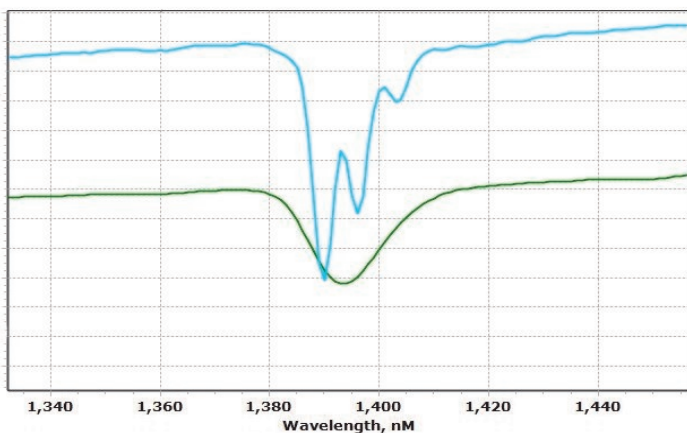


26 Parkridge Road, Suite 104
 Heverhill, MA 01835 USA
 Tel: 978 687-1833 ♦ Fax: 978 945-0372
 Email: sales@spectralevolution.com
www.spectralevolution.com

SPECTRAL EVOLUTION

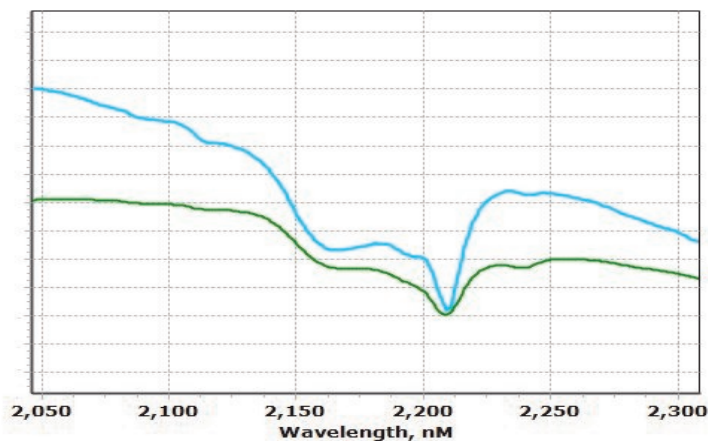
Spectrometers for Mining

Comparison scans of the oreXpert and the oreXpress



A close-up of scans taken with the oreXpert and the oreXpress field spectrometer of a talc sample. Here you can see the dramatic difference the higher resolution capabilities of the oreXpert bring to the spectra. The spectra shows a distinct triplet where the standard spectrometer shows a single shallow absorption feature.

oreXpert is blue scan. oreXpress is green scan. Scans offset for comparison.



A close-up of scans taken with the oreXpert and an oreXpress field spectrometer of a clay sample primarily composed of kaolinite. The spectra from the oreXpert not only shows the major absorption features at a higher resolution, it also uncovers additional spectral features not seen in the standard scan.

oreXpert is blue scan. oreXpress is green scan. Scans offset for comparison.



26 Parkridge Road, Suite 104
Haverhill, MA 01835 USA
Tel: 978 687-1833 ♦ Fax: 978 945-0372
Email: sales@spectralevolution.com
www.spectralevolution.com