

Elvatech

www.elvatech.com

ElvaX Geo Portable XRF Analyzer for Mining and Exploration

**EXCELLENT REPEATABILITY
LOW LIMITS OF DETECTION
UNIQUE 800 MM² ANALYTICAL SPOT**



Instant on-site elemental analysis is one of the necessities of the modern mining industry. ElvaX Geo offers you accurate data and ease of operation during geo exploration or quality assurance. The instrument is designed specifically for long non-stop convenient operation. The unique 800 mm² analytical spot analysis increases averaging of inhomogeneous samples.

A composite pole helps you keep a comfortable body position during operation and enables you to analyze hard-to-reach places. This form factor allows for uninterrupted measurement during slow walking while measurement results are communicated to the operator through headphones.

ElvaX Geo is operated through a PDA in a protective enclosure, which can be put underneath outer garment in case of extreme climatic conditions. The Li-Ion Battery can be hidden as well.

ElvaX Geo software uses both the Fundamental Parameters and the Empirical Calibration Methods. Fundamental parameters analysis of unknown samples without empirical calibration is remarkably accurate. However every instrument is calibrated for the basic mineral types with NIST or NIST traceable samples. ElvaX Geo demonstrates excellent limits of detection and repeatability.

Typical Limits of Detection.

Element	Limits of Detection, ppm
Ti, V, Cr, Mn, Fe	5-10
Co, Ni, Cu, Zn, Pb	15-20
As, Se	15-17
Rb, Sr, Zr, Nb, Pd, Ag, Au	2-5
Cd, Sn, Sb	3-5

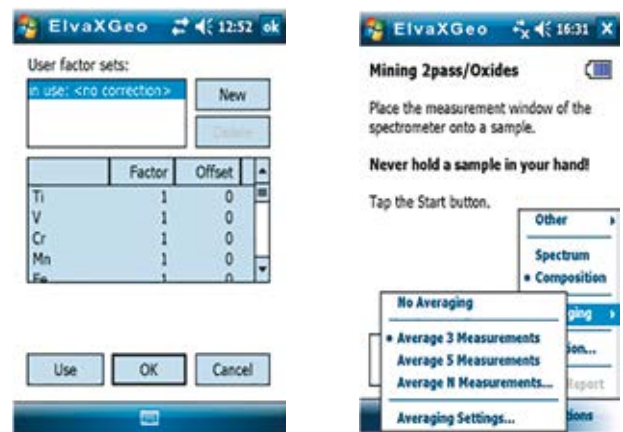


Repeatability of ElvaX Geo in Silicate Matrix.

Measurement #	1	2	3	4	5	6	7	8	9	10	Average	Std Dev	% RSD
Pb, %	42,44	42,4	42,08	42,1	42,61	41,97	42,01	42,26	41,96	42,59	42,24	0,22	0,52
Fe, %	2,53	2,56	2,56	2,54	2,57	2,53	2,54	2,54	2,57	2,54	2,55	0,01	0,39
Ag, ppm	6945	6818	6885	6897	6831	6867	6921	6847	6929	6834	6877	38	0,55

Although ElvaX Geo is capable of analyzing the whole range of minerals without prior calibration User Factor Calculation Method enables you to enhance analysis accuracy from a specific site.

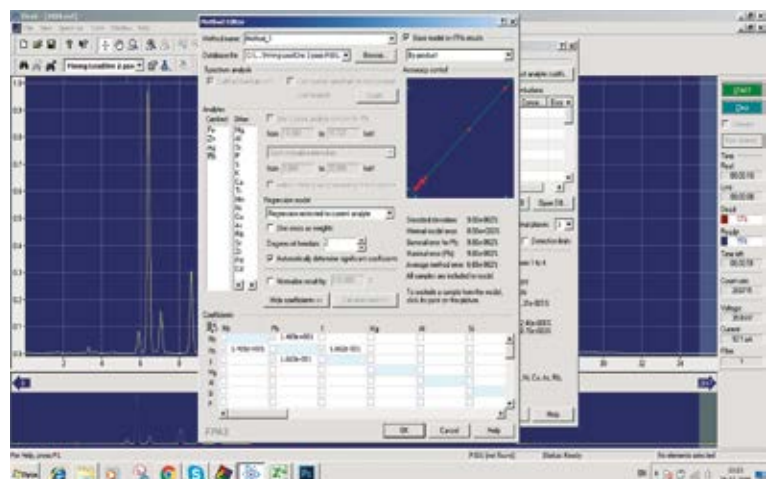
To minimize error during analysis of inhomogeneous samples you can use averaging function



With the help of a laboratory stand ElvaX Geo is transformed into a desktop instrument working with ElvaX TM PC software.



ElvaX TM software allows you not only to perform in-depth analysis of XRF spectra but enables you to create calibrations of your own.



ElvaX Geo supports integration with an external GPS module via Bluetooth. The Acquired data can then be used then in a GIS.

Unauthorized turning on is prevented by a key lock and password.



The analyzer comes with a watertight case, holster for carrying, composite pole, Laboratory stand.



ElvaX Geo Specifications

Analytical Range	From Cl to U
Battery Operation Time	8 hours
X-ray Tube	50 kV max, 200 uAmp max
X-ray Detector	Large area SDD with thermo-electrical cooling
Energy resolution	<140 eV at 5.9 keV
Weight	2 kg

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