



# Whole Rock and Trace Element Analysis – Package WR/TR1

*Whole Rock\* and Trace Element by Lithium Metaborate Fusion and ICP-OES and ICP-MS Analysis*

This package offers analysis of 13 analytes by ICP-OES and 48 analytes by ICP-MS.

### Method Summary

An aliquot of sample is fused with lithium metaborate in a graphite crucible. The bead is then dissolved in dilute HNO<sub>3</sub> for analysis by ICP-MS and ICP-OES.

Quality control measures applied include the preparation and analysis of three standards, a replicate and a blank.

### Detection Limits

Lithium Metaborate Fusion by ICP-OES

Element	Symbol	Detection Limit	Element	Symbol	Detection Limit
Aluminium	Al <sub>2</sub> O <sub>3</sub>	0.01%	Potassium	K <sub>2</sub> O	0.01%
Calcium	CaO	0.01%	Scandium	Sc	2 ppm
Chromium	Cr	2 ppm	Silica	SiO <sub>2</sub>	0.1%
Iron	Fe <sub>2</sub> O <sub>3</sub>	0.01%	Sodium	Na <sub>2</sub> O	0.01%
Magnesium	MgO	0.01%	Titanium	TiO <sub>2</sub>	0.01%
Manganese	MnO	0.01%	Vanadium	V	2 ppm
Phosphorous	P <sub>2</sub> O <sub>5</sub>	0.01%			

\*This Whole Rock lithium metaborate fusion analysis forms part of the Whole Rock and Trace Element package.



## CONTACT

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## Trace Elements by ICP-MS

Element	Symbol	Detection Limit	Element	Symbol	Detection Limit
Antimony	Sb	1 ppm	Mercury	Hg	0.1 ppm
Arsenic	As	0.1 ppm	Molybdenum	Mo	0.1 ppm
Barium	Ba	1 ppm	Niobium	Nb	1 ppm
Beryllium	Be	0.1 ppm	Neodymium	Nd	0.1 ppm
Bismuth	Bi	0.1 ppm	Nickel	Ni	1 ppm
Cadmium	Cd	0.1 ppm	Praseodymium	Pr	0.01 ppm
Cerium	Ce	1 ppm	Rubidium	Rb	0.1 ppm
Cesium	Cs	0.1 ppm	Selenium	Se	1 ppm
Cobalt	Co	0.1 ppm	Samarium	Sm	0.01 ppm
Copper	Cu	0.1 ppm	Silver	Ag	0.1 ppm
Dysprosium	Dy	0.01 ppm	Strontium	Sr	1 ppm
Erbium	Er	0.01 ppm	Tantalum	Ta	0.01 ppm
Europium	Eu	0.01 ppm	Terbium	Tb	0.01 ppm
Gadolinium	Gd	0.01 ppm	Tellurium	Te	0.1 ppm
Gallium	Ga	0.1 ppm	Tin	Sn	0.1 ppm
Germanium	Ge	0.1 ppm	Thorium	Th	0.01 ppm
Hafnium	Hf	0.1 ppm	Thallium	Tl	0.01 ppm
Holmium	Ho	0.01 ppm	Thulium	Tm	0.01 ppm
Lanthanum	La	1 ppm	Tungsten	W	1 ppm
Lead 204	Pb204	0.001 ppm	Uranium	U	0.01 ppm
Lead206	Pb206	0.001 ppm	Ytterbium	Yb	0.01 ppm
Lead207	Pb207	0.001 ppm	Yttrium	Y	0.1 ppm
Lead208	Pb208	0.001 ppm	Zinc	Zn	1 ppm
Lutetium	Lu	0.01 ppm	Zirconium	Zr	1 ppm

## Loss on Ignition (LOI)

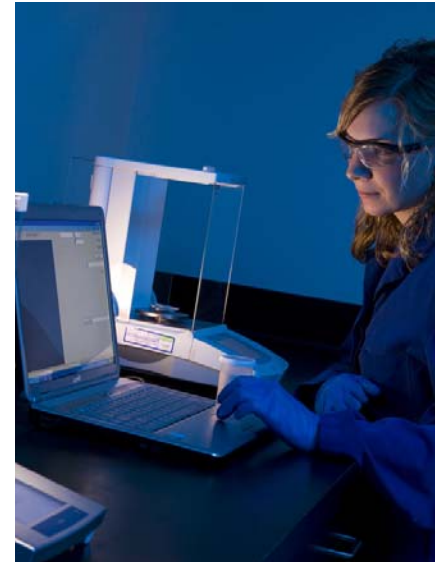
An aliquot of pulp is heated to 1000°C and the weight loss calculated.

## Detection Limits

	Detection Limit
Loss on Ignition (LOI)	0.1%

**WR/TR1 \$84.00 per sample\***

**\*Sample Prep extra**



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