

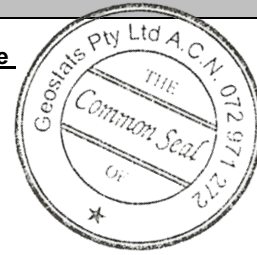
# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

## GBM314-14

Certified Control Values



GBM314-14

Geostats Pty Ltd, Certified Ore Grade Base Metal Reference Material, Product Code:

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	4230	187	101	+/- 37
Copper (ppm)	256	nr	nr	nr
Zinc (ppm)	113	nr	nr	nr
Lead (ppm)	25	nr	nr	nr
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	0.6	0.3	43	+/- 0.11
Sulphur (%)	1.77	0.07	100	+/- 0.01

### CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the April-2014 round robin. The number of results used to certify each analyte is shown in the table above.	<u>Neutron Activation Analysis Results (ppm, unless otherwise noted)</u>		<u>Major Elements by Fusion / XRF (%)</u>	
	Element	Value	Element	Value
<u>Material Description</u> This material is described as a nr.	Antimony	1.7	Fe	nr
	Arsenic	113	SiO <sub>2</sub>	nr
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is light gray in colour.	Barium	<50	Al <sub>2</sub> O <sub>3</sub>	nr
	Bromine	7.6	TiO <sub>2</sub>	nr
<u>Usage</u> This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.	Cadmium	<5	MnO	nr
	Caesium	2.1	CaO	nr
<u>Preparation and Packaging</u> All CRMs are dried in an oven for a minimum of 12 hours at 110°C. The dry material is then pulverised to better than 75 micron (nominal mean of 45 micron) using an air classifier. The material is then homogenised and stored in a sealed, stable container ready for final packaging.  Materials are statistically sampled from stores, then packaged into either heat sealed, air tight, plastic pulp packets or screw top sealed plastic containers ready for distribution. All packaging has been chosen to ensure minimal contamination from outside sources during shipment, use and storage.	Calcium (%)	nr	P	nr
	Cerium	11	S	nr
<u>Assay Testwork</u> All standards are tested thoroughly in the Geostats bi-annual laboratory survey. This involves assaying by multiple laboratories from around the world. Results are compiled into a comprehensive report detailing statistics for each standard. Assay distributions are checked and processed statistically, producing monitoring statistics for these standards. Materials are tested regularly to ensure stability and homogeneity.	Chromium	1090	MgO	nr
	Cobalt	147	K <sub>2</sub> O	nr
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Europium	<1	Na <sub>2</sub> O	nr
	Gold (ppb)	1050	LOI1000	nr
<u>Material Safety</u> This product is not hazardous and non-toxic.	Hafnium	<1	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
	Iridium (ppb)	<50	'nr': Not Reported	
	Iron (%)	7.1		
	Lanthanum	5		
	Lutetium	<0.2		
	Mercury	nr		
	Molybdenum	2		
	Neodymium	nr		
	Nickel	4480		
	Potassium (%)	nr		
	Rubidium	20		
	Samarium	1		
	Scandium	7.6		
	Selenium	<5		
	Silver	<1		
	Sodium (%)	0.341		
	Strontium	nr		
	Tantalum	<0.5		
	Tellurium	nr		
	Terbium	<0.5		
	Thorium	1.4		
	Tin	nr		
	Tungsten	3		
	Uranium	0.7		
	Ytterbium	<2		
	Zinc	170		
	Zirconium	nr		

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