

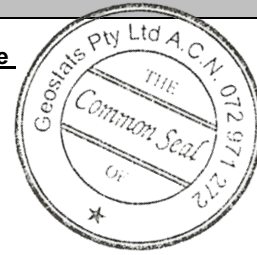
GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM903-13

Certified Control Values



GBM903-13

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	24567	859	167	+/- 132
Copper (ppm)	29077	856	215	+/- 115
Zinc (ppm)	9340	365	188	+/- 53
Lead (ppm)	21559	783	181	+/- 115
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	23.9	1.1	106	+/- 0.2
Sulphur (%)	2.42	0.12	92	+/- 0.03

CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the October-2003, April-2006 & October-2013 round robins. 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>	
	<u>Material Description</u> This material is described as an Oxide Ni/Cu/Pb/Zn.	Antimony	7.31	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is reddish brown in colour.	Arsenic	324	SiO ₂	59.13
<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.	Barium	<43.7	Al ₂ O ₃	8.4
<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.	Bromine	0.7	TiO ₂	0.2
<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.	Cadmium	9.87	MnO	0.04
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	19.9	CaO	1.72
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	nr	P	0.039
	Cerium	9	S	2.47
	Chromium	588.5	MgO	1.26
	Cobalt	43.4	K ₂ O	3.31
	Europium	0.3	Na ₂ O	1.388
	Gold (ppb)	3475	LOI1000	6.31
	Hafnium	17.15		
	Iridium (ppb)	16	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
	Iron (%)	4.56	'nr': Not Reported	
	Lanthanum	4.52		
	Lutetium	0.183		
	Mercury	nr		
	Molybdenum	352.5		
	Neodymium	nr		
	Nickel	24800		
	Potassium (%)	nr		
	Rubidium	710.5		
	Samarium	0.895		
	Scandium	6.43		
	Selenium	<2.87		
	Silver	23.95		
	Sodium (%)	1.11		
	Strontium	nr		
	Tantalum	0.75		
	Tellurium	nr		
	Terbium	<0.135		
	Thorium	1.69		
	Tin	<100		
	Tungsten	13.6		
	Uranium	1.2		
	Ytterbium	1		
	Zinc	9850		
	Zirconium	nr		

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