

# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

## GBM903-5

Certified Control Values



GBM903-5

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	1773	97	127	+/- 17.1
Copper (ppm)	1436	72	142	+/- 12
Zinc (ppm)	685	36	130	+/- 6.3
Lead (ppm)	252	17	122	+/- 3.1
Arsenic (ppm)	932	56	114	+/- 10.5
Cobalt (ppm)	48	5	118	+/- 0.9
Silver (ppm)	3.2	0.3	108	+/- 0.1

### CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the October-2003 & October-2009 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 a Sulphide Gold Ore. Composite of mines.	Antimony	83.85	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is light olive gray in colour.	Arsenic	950	SiO <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.	Barium	410.5	Al <sub>2</sub> O <sub>3</sub>	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.	Bromine	1.255	TiO <sub>2</sub>	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.	Cadmium	5	MnO	nr
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	4.515	CaO	nr
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	4.01	P	nr
	Cerium	44.55	S	nr
	Chromium	262	MgO	nr
	Cobalt	50.05	K <sub>2</sub> O	nr
	Europium	0.895	Na <sub>2</sub> O	nr
	Gold (ppb)	2005	LOI1000	nr
	Hafnium	3.29		
	Iridium (ppb)	<20	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
	Iron (%)	5.44	'nr': Not Reported	
	Lanthanum	21.75		
	Lutetium	0.295		
	Mercury	nr		
	Molybdenum	10.5		
	Neodymium	nr		
	Nickel	1750		
	Potassium (%)	1.29		
	Rubidium	98.85		
	Samarium	3.805		
	Scandium	13.6		
	Selenium	<4		
	Silver	3		
	Sodium (%)	1.015		
	Strontium	nr		
	Tantalum	2.835		
	Tellurium	<5		
	Terbium	0.5		
	Thorium	8.775		
	Tin	<120		
	Tungsten	16.2		
	Uranium	2.8		
	Ytterbium	1.37		
	Zinc	696		
	Zirconium	210		

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