

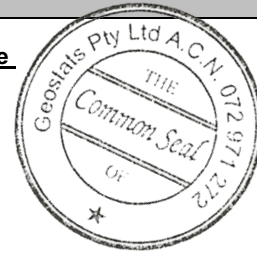
# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

## GBM309-16

Certified Control Values



GBM309-16

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	23	nr	nr	nr
Copper (ppm)	52303	1859	171	+/- 281
Zinc (ppm)	105330	3882	136	+/- 661
Lead (ppm)	14761	626	147	+/- 102
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	225.2	10.7	147	+/- 1.76
Sulphur (%)	27.90	1.03	116	+/- 0.19

### CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the April-2009 & April-2012 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 Cu/Pb/Zn/Ag massive sulphide ore.	Antimony	130	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is dark gray in colour.	Arsenic	322.5	SiO <sub>2</sub>	15.69
<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	<50	Al <sub>2</sub> O <sub>3</sub>	3.23
<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	2	TiO <sub>2</sub>	0.395
<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	214.5	MnO	0.08
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	1	CaO	2.62
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	nr	P	0.025
	Cerium	5	S	26.6
	Chromium	58	MgO	1.2
	Cobalt	128.5	K <sub>2</sub> O	0.231
	Europium	0.6	Na <sub>2</sub> O	0.629
	Gold (ppb)	689.5	LOI1000	19.88
	Hafnium	0.7		
	Iridium (ppb)	<10		
	Iron (%)	24.75		
	Lanthanum	4		
	Lutetium	0.2		
	Mercury	nr		
	Molybdenum	<5		
	Neodymium	nr		
	Nickel	20		
	Potassium (%)	nr		
	Rubidium	18		
	Samarium	1.35		
	Scandium	7.55		
	Selenium	93		
	Silver	219		
	Sodium (%)	0.428		
	Strontium	nr		
	Tantalum	0.3		
	Tellurium	<10		
	Terbium	<0.5		
	Thorium	0.8		
	Tin	1400		
	Tungsten	<4		
	Uranium	0.7		
	Ytterbium	0.8		
	Zinc	103200		
	Zirconium	<100		

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