

**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

**Ore Grade Base Metal Analyses**

Element	Grade	Standard Deviation	No of Analyses	Confidence Interval
Nickel (ppm)	nr	nr	nr	nr
Copper (ppm)	53098	2009	64	+/- 506
Zinc (ppm)	106947	4049	51	+/- 1150
Lead (ppm)	15041	613	54	+/- 169
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	227.9	11.0	56	+/- 2.96
Sulphur (%)	28.1	0.7	48	+/- 0.21

CRM Details

**Control Statistic Details**

Control statistics were produced from results accumulated in the :  
April-2009 Geostats Pty Ltd Laboratory Round Robin Program.  
48 laboratories (at least) tested this material for base metal content.

**Source Material**

Prior to homogenisation and testing, this material was sourced from Cu/Pb/Zn/Ag massive sulphide ore

**Colour Designation**

Dark gray

**Usage**

This product is for use in the mining industry as reference materials for monitoring and testing the accuracy of laboratory assaying.

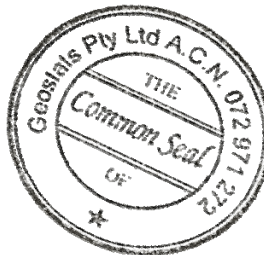
**Preparation and Packaging**

All standards are dried in an oven for a minimum of 12 hours at 110C. 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.

**Assay Testwork**

All standards are tested thoroughly in the Geostats bi-annual laboratory survey. This involves assaying by a minimum of 50 reputable laboratories selected from across the world using a variety of methods (including AR, 3AD, 4AD and ICP, AAS and XRF). 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.



Neutron Activation Analysis Results (ppm)		Major Elements Fusion / XRF (%)	
Antimony	136	Fe	nr
Arsenic	325	SiO2	nr
Barium	<50	Al2O3	nr
Bromine	2	TiO2	nr
Cadmium	219	MnO	nr
Cerium	4	CaO	nr
Caesium	<0.5	P	nr
Chromium	56	S	nr
Cobalt	130	MgO	nr
Europium	<0.5	K2O	nr
Gold ppb	679	Na2O	nr
Hafnium	<1	LOI1000	nr
Iridium ppb	<20		
Iron %	25.2		
Lanthanum	4		
Lutetium	<0.1		
Molybdenum	<4.2		
Nickel	<150		
Rubidium	18		
Samarium	1.3		
Scandium	7.6		
Selenium	93		
Sodium %	0.43		
Tantalum	0.3		
Tellurium	<10		
Terbium	<0.5		
Thorium	0.8		
Tin	1400		
Tungsten	<13		
Uranium	<0.9		
Ytterbium	0.8		
Zinc	107000		
Zirconium	<100		
Calcium%	nr		
Potassium %	nr		
Silver	223		
Mercury	nr		
Neodymium	nr		
Strontium	nr		

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