

# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

## Certified Ore Grade Base Metal Reference Material Product Code

# GBM910-16

### Certified Control Values

#### Ore Grade Base Metal Analyses

Element	Grade	Standard Deviation	No of Analyses	Confidence Interval
Nickel (ppm)	48	nr	nr	nr
Copper (ppm)	10069	368	88	+/- 78
Zinc (ppm)	943	nr	nr	nr
Lead (ppm)	180	nr	nr	nr
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	3.7	nr	nr	nr
Sulphur (%)	1.5	0.1	66	+/- 0.02

### CRM Details

#### Control Statistic Details

Control statistics were produced from results accumulated in the :

October-2010 Geostats Pty Ltd Laboratory Round Robin Program.  
66 laboratories (at least) tested this material for base metal content.

#### Source Material

Prior to homogenisation and testing, this material was sourced from Copper Ore sulphide

#### Colour Designation

Medium Light 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

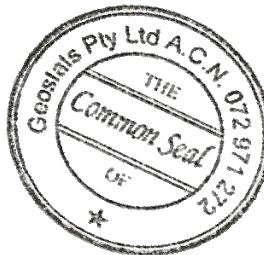
All standards are tested thoroughly in the Geostats bi-annual laboratory survey. This involves assaying by a minimum of 50 reputable laboratories selected from across the world using a variety of methods (including AR, 3AD, 4AD and ICP, AAS and XRF). Results are compiled into a comprehensive report detailing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

Antimony	2.37
Arsenic	125
Barium	374
Bromine	1.03
Cadmium	<5
Cerium	49
Caesium	1.5
Chromium	89.1
Cobalt	142
Europium	<1.54
Gold ppb	7680
Hafnium	4.17
Iridium ppb	<20
Iron %	6.65
Lanthanum	23.1
Lutetium	0.434
Molybdenum	15.1
Nickel	41
Rubidium	78.4
Samarium	4.75
Scandium	20.9
Selenium	<5
Sodium %	2.44
Tantalum	1.13
Tellurium	<20
Terbium	0.64
Thorium	12.6
Tin	<100
Tungsten	<2
Uranium	7.43
Ytterbium	2.94
Zinc	951
Zirconium	<500

#### Major Elements Fusion / XRF (%)

Fe	6.21
SiO <sub>2</sub>	59.4
Al <sub>2</sub> O <sub>3</sub>	13.45
TiO <sub>2</sub>	1.184
MnO	0.11
CaO	5.85
P	0.062
S	1.58
MgO	3.06
K <sub>2</sub> O	1.87
Na <sub>2</sub> O	3.038
LOI1000	1.13



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