

# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

## Certified Base Metal Reference Material Product Code

# GBM998-1

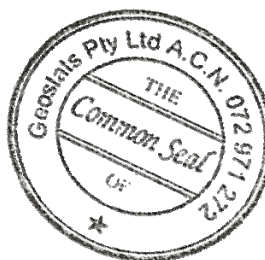
## Certified Control Values

### Base Metal Analyses

Element	Grade	Standard Deviation	No of Analyses	Confidence Interval
Nickel (ppm)	21	5	60	+/- 1.3
Copper (ppm)	2310	134	77	+/- 30.6
Zinc (ppm)	17	9	64	+/- 2.3
Lead (ppm)	64	9	68	+/- 2.2
Arsenic (ppm)	98	13	56	+/- 3.5
Cobalt (ppm)	67	8	62	+/- 2
Silver (ppm)	0.9	0.4	42	+/- 0.1

## CRM Details

Control Statistic Details	Neutron Activation Analysis Results (ppm)		Major Elements Fusion / XRF (%)	
	<p>Control statistics were produced from results accumulated in the : <u>October-1998</u> Geostats Pty Ltd Laboratory Round Robin Program. <u>42</u> laboratories (at least) tested this material for base metal content.</p> <p><b>Source Material</b> Prior to homogenisation and testing, this material was sourced from Copper ore ex Pilbara</p> <p><b>Colour Designation</b> nr</p> <p><b>Usage</b> This product is for use in the mining industry as reference materials for monitoring and testing the accuracy of laboratory assaying.</p> <p><b>Preparation and Packaging</b> 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.</p> <p>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.</p> <p><b>Assay Testwork</b> 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.</p>	<p>Antimony 0.62</p> <p>Arsenic 95.3</p> <p>Barium &lt;100</p> <p>Bromine 2.03</p> <p>Cadmium nr</p> <p>Cerium 45.5</p> <p>Caesium 24.6</p> <p>Chromium 102</p> <p>Cobalt 68.6</p> <p>Europium &lt;0.5</p> <p>Gold ppb 1500</p> <p>Hafnium 9.76</p> <p>Iridium ppb &lt;20</p> <p>Iron % 1.43</p> <p>Lanthanum 25</p> <p>Lutetium &lt;0.2</p> <p>Molybdenum &lt;5</p> <p>Nickel nr</p> <p>Rubidium 913</p> <p>Samarium 3.22</p> <p>Scandium 5.18</p> <p>Selenium &lt;5</p> <p>Sodium % 1.26</p> <p>Tantalum 1.63</p> <p>Tellurium &lt;5</p> <p>Terbium nr</p> <p>Thorium 3.18</p> <p>Tin nr</p> <p>Tungsten 32.3</p> <p>Uranium &lt;2</p> <p>Ytterbium 1.08</p> <p>Zinc &lt;100</p> <p>Zirconium 513</p> <p>Calcium% 2.09</p> <p>Potassium % 3.5</p> <p>Silver &lt;5</p> <p>Mercury nr</p> <p>Neodymium nr</p> <p>Strontium nr</p>	<p>Fe nr</p> <p>SiO2 nr</p> <p>Al2O3 nr</p> <p>TiO2 nr</p> <p>MnO nr</p> <p>CaO nr</p> <p>P nr</p> <p>S nr</p> <p>MgO nr</p> <p>K2O nr</p> <p>Na2O nr</p> <p>LOI1000 nr</p>	



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