

GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM911-16

Certified Control Values

Ore Grade Base Metal Analyses

Element	Grade	Standard Deviation	No of Analyses	Confidence Interval
Nickel (ppm)	240	nr	nr	nr
Copper (ppm)	24786	1016	93	+/- 210
Zinc (ppm)	1210	59	82	+/- 13
Lead (ppm)	324	nr	nr	nr
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	7.9	1.2	84	+/- 0.26
Sulphur (%)	3.6	0.2	66	+/- 0.04

CRM Details

Control Statistic Details

Control statistics were produced from results accumulated in the :

October-2011 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
Cu / Gold Sulphide ore

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

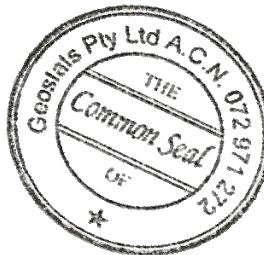
All standards are tested thoroughly in the Geostats bi-annual laboratory survey. This involves assaying by a minimum of 50 reputable laboratories selected from across the world using a variety of methods (including AR, 3AD, 4AD and ICP, AAS and XRF). Results are compiled into a comprehensive report detailing 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	4.7
Arsenic	313
Barium	470
Bromine	<0.5
Cadmium	<5
Cerium	55
Caesium	2.5
Chromium	80
Cobalt	322
Europium	1.1
Gold ppb	13000
Hafnium	9.3
Iridium ppb	<20
Iron %	7.05
Lanthanum	31.6
Lutetium	0.46
Molybdenum	56
Nickel	240
Rubidium	130
Samarium	5
Scandium	13
Selenium	7
Sodium %	2.38
Tantalum	1.4
Tellurium	<10
Terbium	0.9
Thorium	18.4
Tin	<200
Tungsten	5
Uranium	10.5
Ytterbium	3.1
Zinc	1250
Zirconium	<500
Calcium%	nr
Potassium %	nr
Silver	5
Mercury	nr
Neodymium	nr
Strontium	nr

Major Elements Fusion / XRF (%)

Fe	7.06
SiO ₂	59.13
Al ₂ O ₃	12.43
TiO ₂	0.897
MnO	0.07
CaO	3.28
P	0.053
S	3.65
MgO	1.7
K ₂ O	2.7
Na ₂ O	3.224
LOI1000	2.77



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