

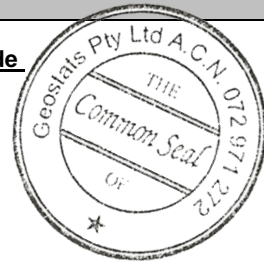
GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM922-15

Certified Control Values



GBM922-15

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	66	14	101	+/- 3
Copper (ppm)	34460	1306	242	+/- 166
Zinc (ppm)	15326	605	217	+/- 81
Lead (ppm)	4723	201	215	+/- 27
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	51.2	3.4	228	+/- 0.44
Sulphur (%)	4.91	0.19	192	+/- 0.03

CRM Details

Control Statistic Details

Control statistics were produced from results accumulated in the October-2022, April-2011 round robins. The number of results used to certify each analyte is shown in the table above.

Material Description

This material is described as a Composite Base Metal Silver.

Colour Designation (ISCC-NBS, SP440)

This material is grayish black in colour.

Usage

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

Preparation and Packaging

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.

Assay Testwork

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.

Stability

This product remains stable in its original packaging, away from direct sunlight.

Material Safety

This product is not hazardous and non-toxic.

Neutron Activation Analysis Results (ppm, unless otherwise noted)

Antimony	56.2
Arsenic	288
Barium	<100
Bromine	<2
Cadmium	23
Caesium	<2
Calcium (%)	nr
Cerium	34
Chromium	162
Cobalt	150
Europium	1.4
Gold (ppb)	21000
Hafnium	<5
Iridium (ppb)	<50
Iron (%)	11.4
Lanthanum	17
Lutetium	0.4
Mercury	nr
Molybdenum	145
Neodymium	nr
Nickel	<100
Potassium (%)	nr
Rubidium	28
Samarium	5.2
Scandium	28.2
Selenium	21
Silver	55
Sodium (%)	1.78
Strontium	nr
Tantalum	<2
Tellurium	<20
Terbium	<1
Thorium	2.8
Tin	<200
Tungsten	60
Uranium	2
Ytterbium	2.8
Zinc	15500
Zirconium	<500

Major Elements by Fusion / XRF (%)

Fe	11.028
SiO ₂	44.48
Al ₂ O ₃	12.19
TiO ₂	1.69
MnO	0.18
CaO	7.97
P	0.086
S	4.806
MgO	4.69
K ₂ O	0.402
Na ₂ O	2.46
LOI1000	2.72

Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.

'nr': Not Reported

20 Hines Road, O'Connor, Western Australia 6163
Phone: +61 8 9314 2566 | Email: info@geostats.com.au
Website: www.geostats.com.au