## **GEOSTATS PTY LTD**

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

# **GBM900-4**

#### **Certified Control Values**



Major Elements by

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	1294	97	169	+/- 14.8
Copper (ppm)	1032	54	200	+/- 7.6
Zinc (ppm)	87	12	182	+/- 1.8
Lead (ppm)	44	8	176	+/- 1.2
Arsenic (ppm)	2448	160	159	+/- 25.1
Cobalt (ppm)	67	8	156	+/- 1.2
Silver (ppm)	1.5	0.5	147	+/- 0.1

## **CRM Details**

## **Control Statistic Details**

Control statistics were produced from results accumulated in the October-1999, April-2000 & October-2000 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 Gold composite Ore Sulphide various locations.

## Colour Designation (ISCC-NBS, SP440)

This material is light olive gray 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.

Analysis Resu	lts (ppm.	Fusion / XRF (%)		
unless otherwi			( - 7	
Antimony	920.333	Fe	nr	
Arsenic	2473.333	SiO <sub>2</sub>	nr	
Barium	395	Al <sub>2</sub> O <sub>3</sub>	nr	
Bromine	2.447	TiO <sub>2</sub>	nr	
Cadmium	nr	MnO	nr	
Caesium	12.7	CaO	nr	
Calcium (%)	3.09	Р	nr	
Cerium	25.067	S	nr	
Chromium	387	MgO	nr	
Cobalt	67.967	K <sub>2</sub> O	nr	
Europium	0.807	Na <sub>2</sub> O	nr	
Gold (ppb)	6043.333	LOI1000	nr	
Hafnium	0.507		J	
Iridium (ppb)	B333333333	Neutron Activation		
Iron (%)	7.99	Analyses ar	nalyses and Fusion /	
Lanthanum	11.567	XRF Analyses are		
Lutetium	0.003	single results and are		
Mercury	nr	indicative only. These		
Molybdenum	<5	are provided for matrix		
Neodymium	nr	identification		
Nickel	nr	purposes.		
Potassium (%)	1.977			
Rubidium	147.333	'nr': Not Reported		
Samarium	3.043			
Scandium	21.2			
Selenium	66666666	6667		
Silver	<5			
Sodium (%)	1.009			
Strontium	nr			
Tantalum	0.227			
Tellurium	66666666	6667		
Terbium	nr			
Thorium	3.74			
Tin	nr			
Tungsten	45.467			
Uranium	<2			
Ytterbium	1.827			
Zinc	131.667			
	131.007			

**Neutron Activation** 

20 Hines Road, O'Connor, Western Australia 6163
Phone: +61 8 9314 2566, Fax: +61 8 9314 3699
e-mail: pjh@geostats.com.au, srr@geostats.com.au
Website http://www.geostats.com.au