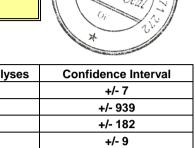
## **GEOSTATS PTY LTD**

**Mining Industry Consultants Reference Material Manufacture and Sales** 

**Certified Ore Grade Base Metal Reference Material Product Code** 

# GBM320-14

### **Certified Control Values**



Major Elements by

Ltd A Pty

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	486	31	81	+/- 7
Copper (ppm)	172671	6969	215	+/- 939
Zinc (ppm)	22911	1136	153	+/- 182
Lead (ppm)	529	52	133	+/- 9
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	10.6	1.1	143	+/- 0.19
Sulphur (%)	29.11	1.20	179	+/- 0.18

### **CRM Details**

Control	Statistic	Details
COLLIO	Statistic	Details

Control statistics were produced from results accumulated in the October-2008, April-2009 & April-2020 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 Cu Con. Ex Pilbara.

### Colour Designation (ISCC-NBS, SP440)

This material is olive black in colour.

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.

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

### **Material Safety**

This product is not hazardous and non-toxic.

Analysis Resul	Fusion / XRF (%)		
unless otherwi			
Antimony	2.2	Fe	23.3
Arsenic	104	SiO <sub>2</sub>	12.73
Barium	<100	Al <sub>2</sub> O <sub>3</sub>	1.64
Bromine	<2	TiO <sub>2</sub>	0.08
Cadmium	82	MnO	0.02
Caesium	<2	CaO	0.36
Calcium (%)	nr	Р	0.022
Cerium	5	S	28.54
Chromium	18	MgO	2.81
Cobalt	309	K <sub>2</sub> O	0.09
Europium	<0.5	Na <sub>2</sub> O	0.15
Gold (ppb)	186	LOI1000	25.46
Hafnium	<5		
Iridium (ppb)	<50	Neutron Act	ivation
Iron (%)	23.5	Analyses ar	nd Fusion /
Lanthanum	4	XRF Analyses are	
Lutetium	<0.2	single results and are	
Mercury	nr	indicative only. These	
Molybdenum	<10	are provided for matrix	
Neodymium	nr	identification	
Nickel	505	purposes.	
Potassium (%)	nr		
Rubidium	<20	'nr': Not Rep	orted
Samarium	0.8		
Scandium	2.2		
Selenium	567		
Silver	11		
Sodium (%)	0.053		
Strontium	nr		
Tantalum	<2		
Tellurium	67		
Terbium	1		
Thorium	0.9		
Tin	<200		
Tungsten	<5		
Uranium	1		
Ytterbium	<0.5		
Zinc	23000		
Zirconium	<500		

**Neutron Activation** 

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