

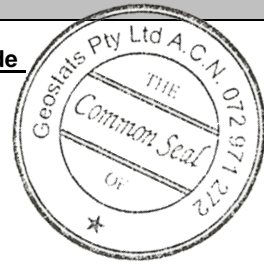
# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

## GBM319-14

Certified Control Values



GBM319-14

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	299	16	181	+/- 2
Copper (ppm)	29546	957	384	+/- 96
Zinc (ppm)	22491	731	326	+/- 80
Lead (ppm)	7331	230	319	+/- 25
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	36.4	1.8	344	+/- 0.19
Sulphur (%)	4.92	0.16	284	+/- 0.02

### CRM Details

<u>Control Statistic Details</u>	<u>Neutron Activation Analysis Results (ppm, unless otherwise noted)</u>	<u>Major Elements by Fusion / XRF (%)</u>	
Control statistics were produced from results accumulated in the April-2015, October-2018, April-2019 round robins. The number of results used to certify each analyte is shown in the table above.	Antimony 547	Fe	8.65
	Arsenic 848.5	SiO <sub>2</sub>	50.2
	Barium 237.75	Al <sub>2</sub> O <sub>3</sub>	11.22
	Bromine <1	TiO <sub>2</sub>	1.16
	Cadmium 41.5	MnO	0.13
	Caesium 1	CaO	5.42
	Calcium (%) nr	P	0.062
	Cerium 34.5	S	4.93
	Chromium 109.75	MgO	3.42
	Cobalt 96	K <sub>2</sub> O	1.56
	Europium 1.45	Na <sub>2</sub> O	2.35
	Gold (ppb) 26600	LOI1000	3.49
	Hafnium <1	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
	Iridium (ppb) <50	'nr': Not Reported	
	Iron (%) 8.525		
	Lanthanum 17.5		
	Lutetium 0.425		
	Mercury nr		
	Molybdenum 97.75		
	Neodymium nr		
	Nickel 312.75		
	Potassium (%) nr		
	Rubidium 60		
	Samarium 4.075		
	Scandium 19.2		
	Selenium 23.25		
	Silver 34.75		
	Sodium (%) 1.763		
	Strontium nr		
	Tantalum 0.9		
	Tellurium <20		
	Terbium 1.3		
	Thorium 8.3		
	Tin <200		
	Tungsten 6		
	Uranium 5.075		
	Ytterbium 2.5		
	Zinc 22750		
	Zirconium <500		
<u>Material Description</u> This material is described as a Sulphide gold copper lead zinc ore.			
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is medium gray in colour.			
<u>Usage</u> This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.			
<u>Preparation and Packaging</u> 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.			
<u>Assay Testwork</u> 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.			
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.			
<u>Material Safety</u> This product is not hazardous and non-toxic.			

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