

GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

GBM920-6

Certified Control Values

Total Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	56	3	54	+/- 0.8
Copper (ppm)	760	23	60	+/- 6
Zinc (ppm)	75	6	53	+/- 1.7
Lead (ppm)	10	2	39	+/- 0.7
Arsenic (ppm)	30	3	48	+/- 1
Cobalt (ppm)	16	2	54	+/- 0.4
Silver (ppm)	0.7	0.2	44	+/- 0.05

Partial Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	52	3	55	+/- 0.8
Copper (ppm)	758	27	72	+/- 6.3
Zinc (ppm)	65	6	55	+/- 1.6
Lead (ppm)	7	3	47	+/- 0.9
Arsenic (ppm)	31	3	52	+/- 0.8
Cobalt (ppm)	15	2	56	+/- 0.5
Silver (ppm)	0.6	0.1	47	+/- 0.03

CRM Details

Control Statistic Details		Neutron Activation Analysis Results (ppm, unless otherwise noted)		Major Elements by Fusion / XRF (%)	
Control statistics were produced from results accumulated in the October-2020 round robin. The number of results used to certify each analyte is shown in the table above.		Antimony	1.2	Fe	4.105
		Arsenic	31	SiO ₂	62.9
		Barium	198	Al ₂ O ₃	15.6
		Bromine	<2	TiO ₂	0.66
		Cadmium	<10	MnO	0.06
		Caesium	5	CaO	4.96
		Calcium (%)	nr	P	0.063
		Cerium	36	S	0.213
		Chromium	90	MgO	3.26
		Cobalt	17	K ₂ O	1.66
		Europium	<0.5	Na ₂ O	3.21
		Gold (ppb)	496	LOH1000	1.32
		Hafnium	<5	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	
		Iridium (ppb)	<50		
		Iron (%)	4		
		Lanthanum	19		
		Lutetium	0.2		
		Mercury	nr		
		Molybdenum	15		
		Neodymium	nr		
		Nickel	60		
		Potassium (%)	nr		
		Rubidium	99		
		Samarium	3.2		
		Scandium	11.2		
		Selenium	<10		
		Silver	<5		
		Sodium (%)	2.26		
		Strontium	nr		
		Tantalum	<2		
		Tellurium	<20		
		Terbium	<1		
		Thorium	6.2		
		Tin	<200		
		Tungsten	27		
		Uranium	2		
		Ytterbium	1.2		
		Zinc	<200		
		Zirconium	<500		

Material Description
This material is described as an Archean porphyry-style Cu/Au/Mo.

Colour Designation (ISCC-NBS, SP440)
This material is light 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.

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