

# GEOSTATS PTY LTD

Mining Industry Consultants  
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

## GBM913-10

Certified Control Values



GBM913-10

### Total Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	7	2	60	+/- 0.5
Copper (ppm)	3019	109	72	+/- 25.8
Zinc (ppm)	380	17	65	+/- 4.4
Lead (ppm)	300	33	65	+/- 8.2
Arsenic (ppm)	823	54	60	+/- 14.1
Cobalt (ppm)	10	1	62	+/- 0.2
Silver (ppm)	3.0	0.2	53	+/- 0.06

### Partial Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	7	2	52	+/- 0.5
Copper (ppm)	3004	172	72	+/- 40.6
Zinc (ppm)	375	25	63	+/- 6.4
Lead (ppm)	179	18	57	+/- 4.9
Arsenic (ppm)	829	55	58	+/- 14.5
Cobalt (ppm)	11	1	51	+/- 0.3
Silver (ppm)	2.9	0.3	67	+/- 0.08

### CRM Details

Control Statistic Details	Neutron Activation Analysis Results (ppm, unless otherwise noted)	Major Elements by Fusion / XRF (%)	
		Fe	6.2
Control statistics were produced from results accumulated in the October-2013 round robin. The number of results used to certify each analyte is shown in the table above.	Antimony 41.1	SiO <sub>2</sub>	66.65
<b>Material Description</b> This material is described as a Silica Diaspore from Peru.	Arsenic 808	Al <sub>2</sub> O <sub>3</sub>	14.41
<b>Colour Designation (ISCC-NBS, SP440)</b> This material is light gray in colour.	Barium 483	TiO <sub>2</sub>	0.489
<b>Usage</b> This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.	Bromine <0.509	MnO	0.02
<b>Preparation and Packaging</b> 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.	Cadmium <3.45	CaO	0.07
<b>Assay Testwork</b> 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.	Caesium 1.28	P	0.069
<b>Stability</b> This product remains stable in its original packaging, away from direct sunlight.	Calcium (%) nr	S	7.19
<b>Material Safety</b> This product is not hazardous and non-toxic.	Cerium 29.8	MgO	0.14
	Chromium 12	K <sub>2</sub> O	0.904
	Cobalt 10	Na <sub>2</sub> O	0.067
	Europium nr	LOI1000	7.5
	Gold (ppb) 129	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
	Hafnium 3.39	'nr': Not Reported	
	Iridium (ppb) <20		
	Iron (%) 6.38		
	Lanthanum 17.3		
	Lutetium <0.0627		
	Mercury nr		
	Molybdenum 9.6		
	Neodymium nr		
	Nickel <10		
	Potassium (%) nr		
	Rubidium 49		
	Samarium 2.31		
	Scandium 5.15		
	Selenium <3.99		
	Silver 2.5		
	Sodium (%) 0.093		
	Strontium nr		
	Tantalum 0.32		
	Tellurium nr		
	Terbium <0.0969		
	Thorium 4.42		
	Tin nr		
	Tungsten 66.7		
	Uranium 4.26		
	Ytterbium nr		
	Zinc 360		
	Zirconium nr		

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