

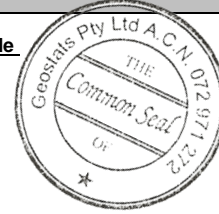
GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

GBM916-5

Certified Control Values



Total Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	5	2	54	+/- 0.6
Copper (ppm)	7006	243	77	+/- 55.5
Zinc (ppm)	268	15	68	+/- 3.5
Lead (ppm)	149	15	68	+/- 3.7
Arsenic (ppm)	22	3	54	+/- 0.8
Cobalt (ppm)	10	1	65	+/- 0.3
Silver (ppm)	2.3	0.4	59	+/- 0.11

Partial Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	4	1	45	+/- 0.4
Copper (ppm)	7065	320	88	+/- 68.2
Zinc (ppm)	223	14	66	+/- 3.6
Lead (ppm)	85	9	65	+/- 2.3
Arsenic (ppm)	19	3	55	+/- 0.9
Cobalt (ppm)	10	1	56	+/- 0.2
Silver (ppm)	2.3	0.4	70	+/- 0.1

CRM Details

Control Statistic Details	Neutron Activation Analysis Results (ppm, unless otherwise noted)	Major Elements by Fusion / XRF (%)	
		Fe	4.175
Control statistics were produced from results accumulated in the October-2016 round robin. The number of results used to certify each analyte is shown in the table above.	Antimony 2.22	SiO ₂	63.31
Material Description This material is described as a Copper sulphide ex Indonesia.	Arsenic 22	Al ₂ O ₃	14.01
Colour Designation (ISCC-NBS, SP440) This material is very light gray in colour.	Barium 448	TiO ₂	0.39
Usage This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.	Bromine <2	MnO	0.1
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.	Cadmium <10	CaO	2.46
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.	Caesium 3	P	0.069
Stability This product remains stable in its original packaging, away from direct sunlight.	Calcium (%) nr	S	2.01
Material Safety This product is not hazardous and non-toxic.	Cerium 25.1	MgO	1.75
	Chromium <20	K ₂ O	2.15
	Cobalt 11	Na ₂ O	1.7
	Europium 0.726	LOI1000	4.69
	Gold (ppb) 392		
	Hafnium <5		
	Iridium (ppb) <50	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
	Iron (%) 4.3	'nr': Not Reported	
	Lanthanum 11.8		
	Lutetium 0.15		
	Mercury nr		
	Molybdenum 23		
	Neodymium nr		
	Nickel <20		
	Potassium (%) nr		
	Rubidium 67		
	Samarium 2		
	Scandium 7		
	Selenium <10		
	Silver <5		
	Sodium (%) 1.25		
	Strontium nr		
	Tantalum <2		
	Tellurium <20		
	Terbium <1		
	Thorium 3.5		
	Tin <200		
	Tungsten <5		
	Uranium <1		
	Ytterbium 0.698		
	Zinc 260		
	Zirconium <500		

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