

GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

GBM302-5

Certified Control Values



GBM302-5

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	498	42	104	+/- 8.1
Copper (ppm)	1059	68	129	+/- 11.9
Zinc (ppm)	359	24	111	+/- 4.5
Lead (ppm)	239	14	105	+/- 2.8
Arsenic (ppm)	1873	125	101	+/- 24.7
Cobalt (ppm)	50	5	96	+/- 1
Silver (ppm)	1.8	0.4	95	+/- 0.1

CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the April-2002 & April-2008 round robins. The number of results used to certify each analyte is shown in the table above.	<u>Neutron Activation Analysis Results (ppm, unless otherwise noted)</u>		<u>Major Elements by Fusion / XRF (%)</u>	
	<u>Material Description</u> This material is described as a Composite Gold Ores.	Antimony	194.5	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is pale yellowish brown in colour.	Arsenic	1910	SiO ₂	nr
<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.	Barium	420.5	Al ₂ O ₃	nr
<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.	Bromine	4.675	TiO ₂	nr
<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.	Cadmium	<5	MnO	nr
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	4.605	CaO	nr
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	1.99	P	nr
	Cerium	27.4	S	nr
	Chromium	720.5	MgO	nr
	Cobalt	50.6	K ₂ O	nr
	Europium	0.81	Na ₂ O	nr
	Gold (ppb)	3115	LOI1000	nr
	Hafnium	5.49		
	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 (%)	9.395	nr: Not Reported	
	Lanthanum	15.55		
	Lutetium	0.37		
	Mercury	nr		
	Molybdenum	<2		
	Neodymium	nr		
	Nickel	530		
	Potassium (%)	1.37		
	Rubidium	59.75		
	Samarium	3.385		
	Scandium	22.3		
	Selenium	<5		
	Silver	1		
	Sodium (%)	0.867		
	Strontium	nr		
	Tantalum	1.1		
	Tellurium	<30		
	Terbium	<0.5		
	Thorium	4.53		
	Tin	<220		
	Tungsten	40.7		
	Uranium	1.6		
	Ytterbium	1.53		
	Zinc	372		
	Zirconium	<200		

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