

GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Base Metal Reference Material Product Code

GBM399-1

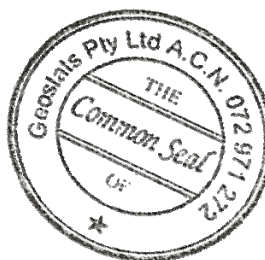
Certified Control Values

Base Metal Analyses

Element	Grade	Standard Deviation	No of Analyses	Confidence Interval
Nickel (ppm)	76	8	60	+/- 2.1
Copper (ppm)	86	7	73	+/- 1.6
Zinc (ppm)	97	9	62	+/- 2.3
Lead (ppm)	125	19	67	+/- 4.7
Arsenic (ppm)	45	8	54	+/- 2.2
Cobalt (ppm)	60	5	57	+/- 1.3
Silver (ppm)	1.1	0.4	48	+/- 0.1

CRM Details

Control Statistic Details	Neutron Activation		Major Elements	
	Analysis Results (ppm)		Fusion / XRF (%)	
Control statistics were produced from results accumulated in the : <u>April-1999</u> Geostats Pty Ltd Laboratory Round Robin Program. <u>48</u> laboratories (at least) tested this material for base metal content.	Antimony	4.35	Fe	nr
	Arsenic	44.3	SiO ₂	nr
	Barium	<100	Al ₂ O ₃	nr
	Bromine	<1	TiO ₂	nr
	Cadmium	nr	MnO	nr
	Cerium	6.81	CaO	nr
	Caesium	30.9	P	nr
	Chromium	62	S	nr
	Cobalt	66	MgO	nr
	Europium	<0.5	K ₂ O	nr
	Gold ppb	56.2	Na ₂ O	nr
	Hafnium	9.47	LOI1000	nr
	Iridium ppb	<20		
	Iron %	3.33		
	Lanthanum	2.16		
	Lutetium	<0.2		
	Molybdenum	26.3		
	Nickel	nr		
	Rubidium	1110		
	Samarium	1.05		
	Scandium	5.89		
	Selenium	<5		
	Sodium %	1.62		
	Tantalum	<1		
	Tellurium	<5		
	Terbium	nr		
	Thorium	0.79		
	Tin	nr		
	Tungsten	<2		
	Uranium	<2		
	Ytterbium	0.78		
	Zinc	125		
	Zirconium	<500		
	Calcium%	1.1		
	Potassium %	4.45		
	Silver	<5		
	Mercury	nr		
	Neodymium	nr		
	Strontium	nr		



Control Statistic Details

Control statistics were produced from results accumulated in the :
April-1999 Geostats Pty Ltd Laboratory Round Robin Program.
48 laboratories (at least) tested this material for base metal content.

Source Material

Prior to homogenisation and testing, this material was sourced from Soil

Colour Designation

Pale reddish brown

Usage

This product is for use in the mining industry as reference materials for monitoring and testing the accuracy of laboratory assaying.

Preparation and Packaging

All standards are dried in an oven for a minimum of 12 hours at 110C. 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 a minimum of 50 reputable laboratories selected from across the world using a variety of methods (including AR, 3AD, 4AD and ICP, AAS and XRF). 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.

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