

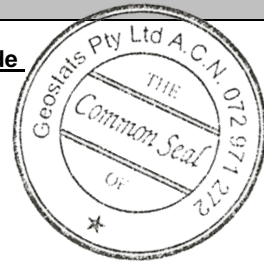
GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM320-11

Certified Control Values



GBM320-11

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	253	21	82	+/- 5
Copper (ppm)	16875	550	112	+/- 104
Zinc (ppm)	113	16	83	+/- 4
Lead (ppm)	45	10	63	+/- 3
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	5.9	0.5	88	+/- 0.1
Sulphur (%)	20.24	0.73	88	+/- 0.15

CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the April-2020 round robin. 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>	
		Antimony	<0.8	Fe
	Arsenic	1520	SiO ₂	37.58
	Barium	348	Al ₂ O ₃	8.69
	Bromine	<2	TiO ₂	0.49
<u>Material Description</u> This material is described as an Au/Cu filtercake sulphide, Pilbara, Western Australia.	Cadmium	<10	MnO	0.09
	Caesium	3	CaO	0.93
	Calcium (%)	nr	P	0.028
	Cerium	65	S	20.23
	Chromium	126	MgO	0.9
	Cobalt	554	K ₂ O	2.27
	Europium	0.8	Na ₂ O	0.74
	Gold (ppb)	3460	LOI1000	16.6
	Hafnium	6	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
	Iridium (ppb)	<50	'nr': Not Reported	
	Iron (%)	20.7		
	Lanthanum	30		
	Lutetium	0.4		
	Mercury	nr		
	Molybdenum	<10		
	Neodymium	nr		
	Nickel	247		
	Potassium (%)	nr		
	Rubidium	55		
	Samarium	5.4		
	Scandium	7.5		
	Selenium	<10		
	Silver	6		
	Sodium (%)	0.482		
	Strontium	nr		
	Tantalum	<2		
	Tellurium	<20		
	Terbium	<1		
	Thorium	18.6		
	Tin	<200		
	Tungsten	20		
	Uranium	6		
	Ytterbium	2.9		
	Zinc	<200		
	Zirconium	<500		
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is pale yellowish brown in colour.				
<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.				
<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.				
<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.				
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.				
<u>Material Safety</u> This product is not hazardous and non-toxic.				

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