

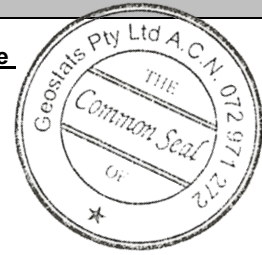
GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM315-15

Certified Control Values



GBM315-15

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

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	842	55	23	+/- 24
Copper (ppm)	250264	7524	126	+/- 1332
Zinc (ppm)	12523	467	111	+/- 88
Lead (ppm)	7680	391	112	+/- 74
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	334.2	14.7	108	+/- 2.81
Sulphur (%)	26.74	0.98	97	+/- 0.2

CRM Details

<u>Control Statistic Details</u>	<u>Neutron Activation Analysis Results (ppm, unless otherwise noted)</u>		<u>Major Elements by Fusion / XRF (%)</u>	
	Control statistics were produced from results accumulated in the April-2015 round robin. The number of results used to certify each analyte is shown in the table above.	Antimony	446	Fe
<u>Material Description</u> This material is described as a Copper concentrate.	Arsenic	1550	SiO ₂	10.09
	Barium	<50	Al ₂ O ₃	2.23
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is grayish black in colour.	Bromine	<1	TiO ₂	0.18
	Cadmium	34	MnO	0.03
<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.	Caesium	<0.5	CaO	1.27
	Calcium (%)	nr	P	0.043
<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.	Cerium	54	S	26.352
	Chromium	<20	MgO	0.87
<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.	Cobalt	454	K ₂ O	0.299
	Europium	<1	Na ₂ O	0.41
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Gold (ppb)	85200	LOI1000	17.25
	Hafnium	<2	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
<u>Material Safety</u> This product is not hazardous and non-toxic.	Iridium (ppb)	<50	'nr': Not Reported	
	Iron (%)	23.4		
	Lanthanum	49		
	Lutetium	0.6		
	Mercury	nr		
	Molybdenum	690		
	Neodymium	nr		
	Nickel	908		
	Potassium (%)	nr		
	Rubidium	20		
	Samarium	2.8		
	Scandium	2		
	Selenium	170		
	Silver	310		
	Sodium (%)	0.243		
	Strontium	nr		
	Tantalum	<0.3		
	Tellurium	nr		
	Terbium	<0.5		
	Thorium	5.6		
	Tin	nr		
	Tungsten	120		
	Uranium	7.7		
	Ytterbium	<2		
	Zinc	12500		
	Zirconium	nr		

20 Hines Road, O'Connor, Western Australia 6163

Phone : +61 8 9314 2566, Fax : +61 8 9314 3699

e-mail : pjh@geostats.com.au, srr@geostats.com.au

Website <http://www.geostats.com.au>