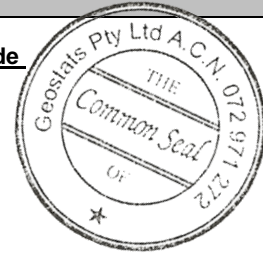


GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM317-13



Certified Control Values

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	39436	1512	85	+/- 328
Copper (ppm)	103409	3068	119	+/- 559
Zinc (ppm)	24779	1031	107	+/- 199
Lead (ppm)	7361	267	102	+/- 53
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	19.0	1.9	103	+/- 0.37
Sulphur (%)	15.52	0.45	86	+/- 0.1

CRM Details

<u>Control Statistic Details</u> Control statistics were produced from results accumulated in the April-2017 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>	
	<u>Material Description</u> This material is described as a Composite Nickel Sulphide ore.	Antimony	85.5	Fe
<u>Colour Designation (ISCC-NBS, SP440)</u> This material is grayish black in colour.	Arsenic	116	SiO ₂	6.82
<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	<50	Al ₂ O ₃	1.41
<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	<2	TiO ₂	0.12
<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	108	MnO	0.06
<u>Stability</u> This product remains stable in its original packaging, away from direct sunlight.	Caesium	<2	CaO	1.03
<u>Material Safety</u> This product is not hazardous and non-toxic.	Calcium (%)	nr	P	0.028
	Cerium	25	S	14.6
	Chromium	94	MgO	1.47
	Cobalt	1810	K ₂ O	0.148
	Europium	<0.6	Na ₂ O	0.15
	Gold (ppb)	1350	LOI1000	25
	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 (%)	31	'nr': Not Reported	
	Lanthanum	7		
	Lutetium	0.2		
	Mercury	nr		
	Molybdenum	<10		
	Neodymium	nr		
	Nickel	40000		
	Potassium (%)	nr		
	Rubidium	<20		
	Samarium	1		
	Scandium	2.9		
	Selenium	15		
	Silver	22		
	Sodium (%)	0.1		
	Strontium	nr		
	Tantalum	<2		
	Tellurium	<20		
	Terbium	<1		
	Thorium	2.9		
	Tin	<200		
	Tungsten	<5		
	Uranium	2		
	Ytterbium	<0.7		
	Zinc	25700		
	Zirconium	<500		

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>

GBM317-13

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