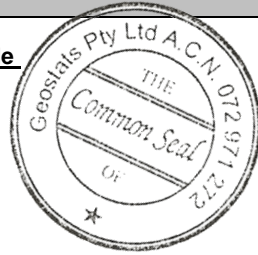


GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM916-13



Certified Control Values

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	23	nr	nr	nr
Copper (ppm)	20136	727	135	+/- 124
Zinc (ppm)	3795	191	113	+/- 36
Lead (ppm)	390	nr	nr	nr
Cobalt (ppm)	nr	nr	nr	nr
Silver (ppm)	12.5	1.2	118	+/- 0.23
Sulphur (%)	17.60	0.62	94	+/- 0.129

CRM Details

Control Statistic Details	Neutron Activation Analysis Results (ppm, unless otherwise noted)		Major Elements by Fusion / XRF (%)	
	Control statistics were produced from results accumulated in the October-2016 round robin. The number of results used to certify each analyte is shown in the table above.	Antimony	9.86	Fe
Material Description This material is described as a Cu / Zn Sulphide Tailings and Feed Composite ex Western Australia.	Arsenic	207	SiO ₂	31.2
	Barium	<50	Al ₂ O ₃	5.53
Colour Designation (ISCC-NBS, SP440) This material is medium dark gray in colour.	Bromine	<2	TiO ₂	0.18
	Cadmium	11.5	MnO	0.11
Usage This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.	Caesium	<1	CaO	1.25
	Calcium (%)	nr	P	0.048
Preparation and Packaging 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	22.4	S	17.4
	Chromium	<20	MgO	3.43
Assay Testwork 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	467	K ₂ O	0.16
	Europium	1.27	Na ₂ O	0.12
Stability This product remains stable in its original packaging, away from direct sunlight.	Gold (ppb)	371	LOI1000	12.81
	Hafnium	<5	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
Material Safety This product is not hazardous and non-toxic.	Iridium (ppb)	<50	nr: Not Reported	
	Iron (%)	29.1		
	Lanthanum	11.3		
	Lutetium	0.33		
	Mercury	nr		
	Molybdenum	11		
	Neodymium	nr		
	Nickel	<20		
	Potassium (%)	nr		
	Rubidium	<20		
	Samarium	2.8		
	Scandium	7.4		
	Selenium	26		
	Silver	12		
	Sodium (%)	0.079		
	Strontium	nr		
	Tantalum	<2		
	Tellurium	<20		
	Terbium	<1		
	Thorium	2		
	Tin	<200		
	Tungsten	5		
	Uranium	<1		
	Ytterbium	1.21		
	Zinc	4000		
	Zirconium	<500		

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