

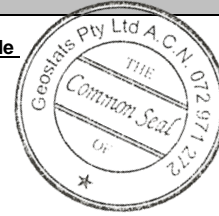
GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

GBM916-10

Certified Control Values



GBM916-10

Total Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	11	2	58	+/- 0.6
Copper (ppm)	2393	118	76	+/- 27.1
Zinc (ppm)	1235	78	73	+/- 18.2
Lead (ppm)	282	19	68	+/- 4.6
Arsenic (ppm)	135	12	58	+/- 3.1
Cobalt (ppm)	319	13	59	+/- 3.4
Silver (ppm)	4.5	0.4	64	+/- 0.1

Partial Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	10	3	55	+/- 0.8
Copper (ppm)	2374	128	87	+/- 27.5
Zinc (ppm)	1142	63	67	+/- 15.4
Lead (ppm)	277	24	72	+/- 5.7
Arsenic (ppm)	138	12	59	+/- 3.1
Cobalt (ppm)	317	29	64	+/- 7.2
Silver (ppm)	4.5	0.6	70	+/- 0.13

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	6.87	Fe
Material Description This material is described as a Sulphide tailings ex Western Australia.	Arsenic	150	SiO ₂	40.08
	Colour Designation (ISCC-NBS, SP440) This material is medium gray in colour.	Barium	<50	Al ₂ O ₃
Usage This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.		Bromine	<2	TiO ₂
	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.	Cadmium	<10	MnO
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.		Caesium	<1	CaO
	Stability This product remains stable in its original packaging, away from direct sunlight.	Calcium (%)	nr	P
Material Safety This product is not hazardous and non-toxic.		Cerium	25.8	S
	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Chromium	<20	MgO
Cobalt		335	K ₂ O	0.22
Major Elements by Fusion / XRF (%)	Europium	1.28	Na ₂ O	0.16
	Gold (ppb)	219	LOI1000	11.78
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	Iridium (ppb)	<50		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Iron (%)	24.2		
	Lanthanum	13		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Lutetium	0.43		
	Mercury	nr		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Molybdenum	<10		
	Neodymium	nr		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Nickel	<20		
	Potassium (%)	nr		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Rubidium	<20		
	Samarium	2.9		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Scandium	8		
	Selenium	16		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Silver	<5		
	Sodium (%)	0.144		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Strontium	nr		
	Tantalum	<2		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Tellurium	<20		
	Terbium	<1		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Thorium	2.4		
	Tin	<200		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Tungsten	5		
	Uranium	<1		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Ytterbium	2.34		
	Zinc	1400		
Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes. 'nr': Not Reported	Zirconium	<500		

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