GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

GBM921-2

Certified Control Values

Total Digest

Total Digoct							
Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval			
Nickel (ppm)	55	3	62	+/- 0.8			
Copper (ppm)	888	33	66	+/- 8.2			
Zinc (ppm)	74	5	59	+/- 1.3			
Lead (ppm)	13	3	57	+/- 0.9			
Arsenic (ppm)	24	3	54	+/- 1			
Cobalt (ppm)	16	1	62	+/- 0.4			
Silver (ppm)	0.7	0.1	45	+/- 0.04			

Partial Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval	
Nickel (ppm)	51	2	55	+/- 0.6	
Copper (ppm)	888	40	90	+/- 8.3	
Zinc (ppm)	65	4	65	+/- 1	
Lead (ppm)	8	2	55	+/- 0.4	
Arsenic (ppm)	24	2	57	+/- 0.5	
Cobalt (ppm)	15	2	61	+/- 0.4	
Silver (ppm)	0.6	0.2	58	+/- 0.05	

CRM Details

	Neutron Activation		Major Elements by	
Control Statistic Details	Analysis Results (ppm,		Fusion / XRF (%)	
Control statistics were produced from results accumulated in the October-2021	unless otherwi	se noted)		
round robin. The number of results used to certify each analyte is shown in the	Antimony	2.5	Fe	4.091
table above.	Arsenic	25.2	SiO ₂	62.61
	Barium	142	Al ₂ O ₃	15.7
Material Description	Bromine	<2	TiO ₂	0.7
This material is described as an Archean porphyry-style Cu/Au/Mo.	Cadmium	<10	MnO	0.06
	Caesium	6	CaO	4.89
	Calcium (%)	nr	Р	0.071
Colour Designation (ISCC-NBS, SP440)	Cerium	36	S	0.229
This material is light gray in colour.	Chromium	95	MgO	3.06
	Cobalt	16.3	K ₂ O	1.58
Usage	Europium	1.1	Na ₂ O	3.46
This product is for use in the mining industry as a reference material for	Gold (ppb)	426	LOI1000	1.4
monitoring and testing the accuracy of laboratory assaying.	Hafnium	<5		
	Iridium (ppb)	<50	Neutron Act	ivation
Preparation and Packaging	Iron (%)	4.2	Analyses ar	d Fusion /
All CRMs are dried in an oven for a minimum of 12 hours at 110°C. The dry	Lanthanum	16	XRF Analys	es are
material is then pulverised to better than 75 micron (nominal mean of 45	Lutetium	0.2	single results and are	
micron) using an air classifier. The material is then homogenised and stored in	Mercury	nr	_	
a sealed, stable container ready for final packaging.	Molybdenum	17	indicative or	1
	Neodymium	nr	are provided	for matrix
Materials are statistically sampled from stores, then packaged into either heat	Nickel	65	identification	n purposes.
sealed, air tight, plastic pulp packets or screw top sealed plastic containers	Potassium (%)	nr		
ready for distribution. All packaging has been chosen to ensure minimal	Rubidium	109	'nr': Not Reported	
contamination from outside sources during shipment, use and storage.	Samarium	3.7		
	Scandium	11.7		
Assay Testwork	Selenium	<10		
All standards are tested thoroughly in the Geostats bi-annual laboratory survey.	Silver	<5		
This involves assaying by multiple laboratories from around the world. Results	Sodium (%)	2.52		
are compiled into a comprehensive report detailing statistics for each standard.	Strontium	nr		
Assay distributions are checked and processed statistically, producing	Tantalum	<2		
monitoring statistics for these standards. Materials are tested regularly to	Tellurium	<20		
ensure stability and homogeneity.	Terbium	<1		
	Thorium	6.7		
<u>Stability</u>	Tin	<200		
This product remains stable in its original packaging, away from direct sunlight.	Tungsten	23		
	Uranium	2		
Material Safety	Ytterbium	1.3		
This product is not hazardous and non-toxic.	Zinc	<200		
	Zirconium	<500		

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