GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Multi-Element Reference Material Product Code

GBMS623-4

Certified Control Values

Analyses

Element	Grade	Standard Deviation	No of Analyses	Confidence Interval
Au - FA (ppm)	17.95	0.86	172	+/- 0.13
Au - AR (ppm)	17.29	1.21	56	+/- 0.327
Silver (ppm)	49.9	3.7	129	+/- 0.64
Copper (ppm)	22728	645	132	+/- 111.4
Lead (ppm)	9476	369	136	+/- 62.9
Zinc (ppm)	19340	730	127	+/- 128.7
Nickel (ppm)	196	11	131	+/- 1.8
Arsenic (ppm)	1263	59	115	+/- 10.9
Cobalt (ppm)	106	8	135	+/- 1.3
Sulphur (%)	3.88	0.16	100	+/- 0.031

CRM Details

Control Statistic Details
Control statsitics were produced from results accumulated in the :
October-2015 & October-2017 Geostats Pty Ltd Laboratory Round Robin Programs.
56 laboratories (at least) tested this material for base metal content.

Source Material
Prior to homogenisation and testing, this material was sourced from High grade gold Cu Pb Zn ore some sulphide

Colour Designation
Medium Dark Gray

Usage
This product is for use in the mining industry as reference materials for monitoring and testing the accuracy of laboratory assaying.

Preparation and Packaging
All standards are dried in an oven for a minimum of 12 hours at 110C. The dry material is then pulverised to better than 75 micron (nominal mean of 45 micron) using an Air Classifier. Thematerial 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.

Assay Testwork
All standards are tested thoroughly in the Geostats bi-annual laboratory survey. This involves assaying by a minimum of 50 reputable laboratories selected from across the world using a variety of methods (including FA, AR, 3AD, 4AD and ICP, AAS and XRF). 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

Neutron Activation Analysis Results (ppm)	
Antimony	816
Arsenic	1300
Barium	480
Bromine	<2
Cadmium	47
Cerium	38
Caesium	<1
Chromium	70
Cobalt	115
Europium	1
Gold ppb	16900
Hafnium	<5
Iridium ppb	<50
Iron %	9
Lanthanum	20
Lutetium	0
Molybendum	85
Nickel	190
Rubidium	75
Samarium	5
Scandium	20
Selenium	20
Sodium %	2
Tantalum	2
Tellurium	<20
Terbium	<1
Thorium	10
Tin	<200
Tungsten	13
Uranium	5
Ytterbium	3
Zinc	19200
Zirconium	<500
Calcium%	nr
Potassium %	nr
Silver	48
Mercury	nr
Neodymium	nr
Strontium	nr

Major Elements Fusion / XRF (%)	
Fe	8.874126
SiO2	51.08
Al2O3	11.44
TiO2	1.38
MnO	0.15
CaO	5.28
P	0.066347
S	3.82459
MgO	2.91
K2O	1.65
Na2O	nr
LOI1000	2.59

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