GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Ore Grade Base Metal Reference Material Product Code

GBM315-14

Certified Control Values



Major Elements by

Neutron Activation

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval	
Nickel (ppm)	301	20	23	+/- 9	
Copper (ppm)	29574	905	132	+/- 156	
Zinc (ppm)	22481	695	111	+/- 131	
Lead (ppm)	7349	229	106	+/- 44	
Cobalt (ppm)	nr	nr	nr	nr	
Silver (ppm)	36.3	1.7	116	+/- 0.32	
Sulphur (%)	4.95	0.15	96	+/- 0.03	

CRM Details

Control Statistic Details	Analysis Results (ppm,		Fusion / XRF (%)	
Control statistics were produced from results accumulated in the April-2015 round	unless otherwise noted)			` '
robin. The number of results used to certify each analyte is shown in the table	Antimony	567	Fe	8.629
above.	Arsenic	873	SiO ₂	50.42
	Barium	230	Al ₂ O ₃	11.61
Material Description	Bromine	<1	TiO ₂	1.17
This material is described as a Sulphide Gold copper lead zinc ore.	Cadmium	38	MnO	0.14
· · · · · ·	Caesium	1	CaO	5.47
	Calcium (%)	nr	Р	0.064
Colour Designation (ISCC-NBS, SP440)	Cerium	<10	S	4.806
This material is medium light gray in colour.	Chromium	120	MgO	3.42
	Cobalt	95	K ₂ O	1.56
<u>Usage</u>	Europium	<1	Na ₂ O	2.48
This product is for use in the mining industry as a reference material for	Gold (ppb)	27400	LOI1000	3.23
monitoring and testing the accuracy of laboratory assaying.	Hafnium	<1		
	Iridium (ppb)	<50	Neutron Act	ivation
Preparation and Packaging	Iron (%)	8.7	Analyses and Fusion /	
All CRMs are dried in an oven for a minimum of 12 hours at 110°C. The dry	Lanthanum	19	XRF Analyses are	
material is then pulverised to better than 75 micron (nominal mean of 45 micron)	Lutetium	0.5	single results and are	
using an air classifier. The material is then homogenised and stored in a sealed,	Mercury	nr	indicative only. These	
stable container ready for final packaging.	Molybdenum	90	are provided for matrix	
	Neodymium	nr	identification	า
Materials are statistically sampled from stores, then packaged into either heat	Nickel	321	purposes.	
sealed, air tight, plastic pulp packets or screw top sealed plastic containers ready	Potassium (%)	nr		
for distribution. All packaging has been chosen to ensure minimal contamination	Rubidium	70	'nr': Not Reported	
from outside sources during shipment, use and storage.	Samarium	4.1		
	Scandium	20.7		
Assay Testwork	Selenium	24		
All standards are tested thoroughly in the Geostats bi-annual laboratory survey.	Silver	33		
This involves assaying by multiple laboratories from around the world. Results are	Sodium (%)	1.68		
compiled into a comprehensive report detailing statistics for each standard. Assay	Strontium	nr		
distributions are checked and processed statistically, producing monitoring	Tantalum	0.9		
statistics for these standards. Materials are tested regularly to ensure stability and	Tellurium	nr		
homogeneity.	Terbium	0.6		
	Thorium	9.4		
<u>Stability</u>	Tin	nr		
This product remains stable in its original packaging, away from direct sunlight.	Tungsten	6		
	Uranium	5.3		
Material Safety	Ytterbium	<2		
This product is not hazardous and non-toxic.	Zinc	23000		
	Zirconium	nr		

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