

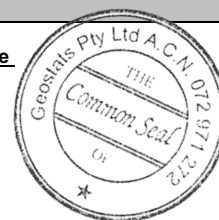
GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Geochem Base Metal Reference Material Product Code

GBM313-4

Certified Control Values



GBM313-4

Total Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	250	10	49	+/- 2.8
Copper (ppm)	342	9	55	+/- 2.5
Zinc (ppm)	337	18	58	+/- 4.8
Lead (ppm)	110	8	57	+/- 2.2
Arsenic (ppm)	385	13	42	+/- 4.1
Cobalt (ppm)	33	3	55	+/- 0.8
Silver (ppm)	2.7	0.2	48	+/- 0.07

Partial Digest

Element	Grade	Standard Deviation	Num of Analyses	Confidence Interval
Nickel (ppm)	230	17	49	+/- 5.1
Copper (ppm)	344	16	64	+/- 4
Zinc (ppm)	317	22	60	+/- 5.7
Lead (ppm)	109	7	53	+/- 2
Arsenic (ppm)	386	22	52	+/- 6.1
Cobalt (ppm)	27	4	49	+/- 1.2
Silver (ppm)	2.7	0.2	56	+/- 0.06

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 April-2013 round robin. The number of results used to certify each analyte is shown in the table above.	Antimony 101	Fe	7.04
	Arsenic 403	SiO ₂	59.33
	Barium 266	Al ₂ O ₃	12.09
	Bromine 2.81	TiO ₂	0.946
	Cadmium <7.95	MnO	0.16
	Caesium 3.04	CaO	4.31
	Calcium (%) nr	P	0.051
	Cerium 24.7	S	0.77
	Chromium 1100	MgO	4.03
	Cobalt 33	K ₂ O	1.67
	Europium 1.37	Na ₂ O	1.937
	Gold (ppb) 2490	LOI1000	3.77
	Hafnium 2.36		
	Iridium (ppb) <14.5	Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.	
	Iron (%) 7.33	'nr': Not Reported	
	Lanthanum 11.4		
	Lutetium 0.349		
	Mercury nr		
	Molybdenum 2.99		
	Neodymium nr		
	Nickel 284		
	Potassium (%) nr		
	Rubidium 71.6		
	Samarium 3.55		
	Scandium 17.9		
	Selenium <4.52		
	Silver 2.3		
	Sodium (%) 1.53		
	Strontium nr		
	Tantalum 3.1		
	Tellurium <6.87		
	Terbium 0.686		
	Thorium 6.09		
	Tin <96.8		
	Tungsten 9.7		
	Uranium 3.7		
	Ytterbium 1.67		
	Zinc 400		
	Zirconium <189		
Material Description This material is described as a Composite ores.			
Colour Designation (ISCC-NBS, SP440) This material is grayish orange pink in colour.			
Usage This product is for use in the mining industry as a reference material for monitoring and testing the accuracy of laboratory assaying.			
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.			
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.			
Stability This product remains stable in its original packaging, away from direct sunlight.			
Material Safety This product is not hazardous and non-toxic.			

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Geostats Pty Ltd, Certified Geochem Base Metal Reference Material, Product Code: