GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Gold Reference Material Product Code

G916-10

Certified Control Values

50 gram Fire Assay

Gold Grade	2.81 ppm
Standard Deviation	0.14 ppm
Confidence Interval	+/- 0.021 ppm

Aqua Regia Digest

Gold Grade	2.73 ppm
Standard Deviation	0.16 ppm
Confidence Interval	+/- 0.041 ppm

Geostats Pty Ltd A.C.N. 072 971 272 THE Common Seal OF

CRM Details

Control Statistic Details

Control statistics were produced from results accumulated in the October-2016 round robin. A total of 175 fire assay results and 64 results from an aqua regia technique were used to certify this material.

Material Description

This material is described as a Composite of Samples.

Colour Designation (ISCC-NBS, SP440)

This material is light brownish gray 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.

Neutron Activation Analysis Results (ppm, unless otherwise noted)	
Antimony	32.6
Arsenic	162
Barium	614
Bromine	<2
Cadmium	<10
Caesium	3
Calcium (%)	nr
Cerium	52.8
Chromium	353
Cobalt	48
Europium	0.993
Gold (ppb)	2950
Hafnium	<5
Iridium (ppb)	<50
Iron (%)	6.7
Lanthanum	25.5
Lutetium	0.39
Mercury	nr
Molybdenum	19
Neodymium	nr
Nickel	787
Potassium (%)	nr
Rubidium	130
Samarium	5.3
Scandium	18.7
Selenium	<10
Silver	8
Sodium (%)	2.14
Strontium	nr
Tantalum	<2
Tellurium	<20
Terbium	1
Thorium	17.9
Tin	<200
Tungsten	7
Uranium	7
Ytterbium	1.47
Zinc	1200
Zirconium	<500

Major Elements by Fusion / XRF (%)	
Fe	6.65
SiO_2	58.58
Al_2O_3	14.19
TiO_2	1.08
MnO	0.12
CaO	4.89
P	0.063
S	0.56
MgO	3.08
K_2O	2.16
Na_2O	2.8
LOI1000	1.88

Neutron Activation Analyses and Fusion / XRF Analyses are single results and are indicative only. These are provided for matrix identification purposes.

'nr': Not Reported

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