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

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  
Cesium  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  
SiO₂  58.58  
Al₂O₃  14.19  
MnO  1.98  
MnO  0.12  
CaO  4.89  
P  0.063  
S  0.56  
MgO  3.08  
K₂O  2.16  
Na₂O  2.8  
TiO₂  1.08  
MnO  0.12  
CaO  4.89  
Na₂O  2.8

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