## Certified Gold Reference Material Product Code

**G914-4**

### Certified Control Values

#### 50 gram Fire Assay
- **Gold Grade:** 0.20 ppm
- **Standard Deviation:** 0.01 ppm
- **Confidence Interval:** +/- 0.002 ppm

#### Aqua Regia Digest
- **Gold Grade:** 0.20 ppm
- **Standard Deviation:** 0.02 ppm
- **Confidence Interval:** +/- 0.005 ppm

### CRM Details

#### Control Statistic Details
Control statistics were produced from results accumulated in the October-2014 round robin. A total of 163 fire assay results and 53 results from an aqua regia technique were used to certify this material.

#### Material Description
This material is described as a Low gold Copper ore.

#### Colour Designation (ISCC-NBS, SP440)
This material is light 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:** <0.1
- **Arsenic:** <1
- **Barium:** 370
- **Bromine:** <0.5
- **Cadmium:** <5
- **Cesium:** 2.33
- **Calcium (%):** nr
- **Cerium:** 34.6
- **Chromium:** 120
- **Gold (ppb):** 242
- **Hafnium:** 4
- **Iridium (ppb):** <50
- **Iron (%):** 5.9
- **Lanthanum:** 20
- **Lutetium:** <0.2
- **Mercury:** nr
- **Molybdenum:** 8.49
- **Neodymium:** nr
- **Nickel:** 29.5
- **Potassium (%):** nr
- **Rubidium:** 90
- **Samarium:** 4.74
- **Scandium:** 23.3
- **Selenium:** <10
- **Silver:** 1
- **Sodium (%):** 2.21
- **Strontium:** nr
- **Tantalum:** 1.3
- **Tellurium:** nr
- **Terbium:** 1.1
- **Thorium:** 12.5
- **Tin:** nr
- **Tungsten:** <1.04
- **Uranium:** 5.9
- **Ytterbium:** 2
- **Zinc:** 92
- **Zirconium:** nr

### Major Elements by Fusion / XRF (%)
- **Antimony:** Fe 5.97
- **Arsenic:** SiO<sub>2</sub> 69.53
- **Barium:** Al<sub>2</sub>O<sub>3</sub> 13.78
- **Bromine:** TiO<sub>2</sub> 1.36
- **Cadmium:** MnO 0.12
- **Cesium:** CaO 6.43
- **Calcium (%):** P 0.066
- **Cerium:** Eu 3.55
- **Chromium:** K<sub>2</sub>O 1.8
- **Gold (ppb):** La<sub>2</sub>O<sub>3</sub> 0.42
- **Hafnium:** Hf 0.4
- **Iridium (ppb):** Re 0.002
- **Iron (%):** Co 2.4
- **Lanthanum:** Cr 0.12
- **Lutetium:** Ca 0.2
- **Mercury:** K 0.04
- **Molybdenum:** Mo 3.55
- **Neodymium:** Ba 4.74
- **Nickel:** Sr 23.3
- **Potassium (%):** Ce 29.5
- **Rubidium:** Nd 29.5
- **Samarium:** Pr 2.21
- **Selenium:** Eu 0.12
- **Samarium:** Yb 2.0
- **Scandium:** Sc 23.3
- **Tellurium:** Sm 1.1
- **Terbium:** Th 12.5
- **Thorium:** Sn 1.3
- **Tin:** W 2.21
- **Tungsten:** U 5.9
- **Uranium:** Y 2
- **Ytterbium:** Zn 92
- **Zirconium:** Zr

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