GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Gold Reference Material Product Code

G913-7

Certified Control Values

50 gram Fire Assay

Gold Grade	2.31 ppm
Standard Deviation	0.10 ppm
Confidence Interval	+/- 0.014 ppm

Aqua Regia Digest

Gold Grade	2.26 ppm
Standard Deviation	0.12 ppm
Confidence Interval	+/- 0.027 ppm

CRM Details

Control Statistic Details

Control statistics were produced from results accumulated in the October-2013 round robin. A total of 181 fire assay results and 76 results from an aqua regia technique were used to certify this material.

Material Description

This material is described as an Oxide mine composite ore.

Colour Designation (ISCC-NBS, SP440)

This material is pale red 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	78.1
Arsenic	81
Barium	370
Bromine	1.67
Cadmium	<1.81
Caesium	1.82
Calcium (%)	nr
Cerium	43.7
Chromium	52.1
Cobalt	12.4
Europium	nr
Gold (ppb)	2510
Hafnium	10.3
Iridium (ppb)	<20
Iron (%)	6.88
Lanthanum	24.1
Lutetium	0.58
Mercury	nr
Molybdenum	16.6
Neodymium	nr
Nickel	17.9
Potassium (%)	nr
Rubidium	119
Samarium	3.43
Scandium	13.1
Selenium	<3.69
Silver	3.66
Sodium (%)	2.12
Strontium	nr
Tantalum	1.74
Tellurium	nr
Terbium	0.679
Thorium	33.7
Tin	nr
Tungsten	1.03
Uranium	10.2
Ytterbium	nr
Zinc	275
Zirconium	nr

Major Elements by Fusion / XRF (%)	
Fe	6.41
SiO_2	56.78
Al_2O_3	18.21
TiO_2	1.01
MnO	0.07
CaO	2.66
P	0.039
S	0.33
MgO	1.33
K_2O	2.34
Na_2O	2.804
LOI1000	4.48

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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Geostats Pty Ltd, Certified Gold Reference Material, Product Code: