

## Certified Pulp Iron Ore Reference Material - GIOP-111

### Certificate of Analysis

Analyte	Units	Average	Standard Deviation	Count	95% Confidence Interval
Fe	%	33.35	0.15	48	+/- 0.04
SiO <sub>2</sub>	%	48.26	0.17	46	+/- 0.05
Al <sub>2</sub> O <sub>3</sub>	%	0.2213	0.0081	45	+/- 0.0025
TiO <sub>2</sub>	%	0.0141	0.005	34	+/- 0.0018
Mn	%	0.0489	0.0018	44	+/- 0.0005
CaO	%	2.496	0.022	50	+/- 0.006
P	%	0.0674	0.0014	50	+/- 0.0004
S	%	0.299	0.01	49	+/- 0.003
MgO	%	1.977	0.021	49	+/- 0.006
K <sub>2</sub> O	%	0.0157	0.0044	50	+/- 0.0013
Zn	%	0.0055	0.003	31	+/- 0.0011
Pb	%	0.0041			
Cu	%	0.0047			
Ba	%	0.0032			
V	%	0.0014			
Cr	%	0.0041			
Cl	%	0.0109	0.0021	39	+/- 0.0007
As	%	0.0068			
Ni	%	0.0036			
Co	%	0.003			
Sn	%	0.0015			
Sr	%	0.0062			
Zr	%	0.0017			
Na	%	0.0216	0.005	45	+/- 0.0015
LOI <sub>425</sub>	%	-0.118	0.072	40	+/- 0.023
LOI <sub>650</sub>	%	-0.75	0.18	40	+/- 0.06
LOI	%	-1.069	0.028	48	+/- 0.008

#### Control Statistic Details

Control values for this material were determined during a certification program.

#### Certification Date

This material was certified with the above values on:

20/07/2011

#### Source Material

Prior to homogenisation and testing, this material was sourced from  
 Yilgarn, Western Australia

#### Usage

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**GEOSTATS PTY LTD**

Mining Industry Consultants  
Reference Material Manufacture and Sales

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**

This certified reference material was dried in an oven for a minimum of 8 hours at 105°C. The dry material was pulverised in a "puck and bowl" and then homogenised in a vee-blender. The material is then packaged into 10g plastic packets, ready for shipment.

#### **Certification Testwork**

This certified reference material was tested in a dedicated certification program. 10 samples were sent to 5 laboratories for XRF analyses. Assay distributions are checked and processed statistically, producing monitoring statistics for these standards. Materials are tested regularly to ensure stability and homogeneity.