

## Certified Pulp Iron Ore Reference Material - GIOP-50

### Certificate of Analysis

Analyte	Units	Average	Standard Deviation	Count	95% Confidence Interval
Fe	%	46.65	0.18	48	+/- 0.05
Fe (Calc)	%	46.65	0.17	48	+/- 0.05
SiO <sub>2</sub>	%	18.1	0.15	46	+/- 0.05
Al <sub>2</sub> O <sub>3</sub>	%	5.328	0.047	45	+/- 0.014
TiO <sub>2</sub>	%	0.3169	0.007	50	+/- 0.002
Mn	%	0.2618	0.0061	50	+/- 0.0017
CaO	%	0.52	0.013	50	+/- 0.004
P	%	0.0607	0.0017	50	+/- 0.0005
S	%	0.0374	0.002	50	+/- 0.0006
MgO	%	0.473	0.016	50	+/- 0.004
K <sub>2</sub> O	%	0.127	0.0076	50	+/- 0.0022
Zn	%	0.005	0.0012	33	+/- 0.0004
Pb	%	0.0057			
Cu	%	0.0044	0.0036	32	+/- 0.0013
Ba	%	0.0038			
V	%	0.0057	0.0045	38	+/- 0.0015
Cr	%	0.00476	0.00093	38	+/- 0.00031
Cl	%	0.015	0.018	44	+/- 0.006
As	%	0.0053			
Ni	%	0.0041	0.0032	30	+/- 0.0012
Co	%	0.0035			
Sn	%	0.0088			
Sr	%	0.0028			
Zr	%	0.0063			
Na	%	0.0234	0.008	46	+/- 0.0024
LOI <sub>425</sub>	%	5.637	0.091	47	+/- 0.027
LOI <sub>650</sub>	%	7.39	0.11	50	+/- 0.03
LOI	%	7.659	0.083	50	+/- 0.024

#### 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:

1/12/2010

#### Source Material

Prior to homogenisation and testing, this material was sourced from  
 Pilbara

#### Usage

10A Marsh Close, O'Connor  
Western Australia 6163  
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Email [info@geostats.com.au](mailto:info@geostats.com.au)  
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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.