10A Marsh Close, O'Connor
Western Australia 6163
Phone +618 93142566 Fax +618 93143699
Email info@geostats.com.au
Website http://www.geostats.com.au

GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Pulp Iron Ore Reference Material - GIOP-113

Certificate of Analysis

Analyte	Units	Average	Standard Deviation	Count	95% Confidence Interval
Fe	%	32.11	0.11	40	+/- 0.03
SiO2	%	48.98	0.27	50	+/- 0.08
Al2O3	%	0.5359	0.0098	46	+/- 0.0029
TiO2	%	0.0298	0.0059	50	+/- 0.0017
Mn	%	0.1712	0.0045	50	+/- 0.0013
CaO	%	2.403	0.021	50	+/- 0.006
P	%	0.0793	0.0013	50	+/- 0.0004
S	%	0.453	0.011	48	+/- 0.003
MgO	%	2.343	0.022	50	+/- 0.006
K2O	%	0.0218	0.0023	50	+/- 0.0007
Zn	%	0.0107	0.0025	46	+/- 0.0007
Pb	%	0.0042			
Cu	%	0.0048			
Ba	%	0.0042			
V	%	0.0021			
Cr	%	0.0019			
Cl	%	0.0117	0.0027	39	+/- 0.0009
As	%	0.0033			
Ni	%	0.0048			
Co	%	0.0034	0.0026	30	+/- 0.001
Sn	%	0.0027			
Sr	%	0.0073			
Zr	%	0.0021			
Na	%	0.0276	0.0061	49	+/- 0.0018
LOI425	%	-0.155	0.1	40	+/- 0.032
LOI650	%	-0.647	0.04	36	+/- 0.014
LOI	%	-0.719	0.036	48	+/- 0.01
FeO	%	18.12	0.7	48	+/- 0.21

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

10A Marsh Close, O'Connor
Western Australia 6163
Phone +618 93142566 Fax +618 93143699
Email info@geostats.com.au
Website http://www.geostats.com.au

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.