10A Marsh Close, O'Connor Western Australia 6163 Phone +618 93142566 Fax +618 93143699

Filolie +010 93142300 Fax +010 931

Email <u>info@geostats.com.au</u>

Website http://www.geostats.com.au

GEOSTATS PTY LTD

Mining Industry Consultants
Reference Material Manufacture and Sales

Certified Pulp Iron Ore Reference Material - GIOP-53

Certificate of Analysis

Analyte	Units	Average	Standard Deviation	Count	95% Confidence Interval
Fe	%	56.78	0.16	49	+/- 0.05
Fe (Calc)	%	56.787	0.085	44	+/- 0.026
SiO2	%	5.689	0.037	43	+/- 0.012
Al2O3	%	2.554	0.022	49	+/- 0.006
TiO2	%	0.1522	0.0037	50	+/- 0.0011
Mn	%	0.0708	0.0021	50	+/- 0.0006
CaO	%	0.1514	0.0064	50	+/- 0.0018
Р	%	0.0399	0.0012	50	+/- 0.0003
S	%	0.0135	0.0019	50	+/- 0.0005
MgO	%	0.147	0.01	49	+/- 0.003
K2O	%	0.0099	0.0011	38	+/- 0.0004
Zn	%	0.0063	0.0021	40	+/- 0.0007
Pb	%	0.0043			
Cu	%	0.0035			
Ва	%	0.0035			
V	%	0.0031	0.0047	38	+/- 0.0016
Cr	%	0.00313	0.00089	37	+/- 0.0003
CI	%	0.011			
As	%	0.0045			
Ni	%	0.0036	0.0028	34	+/- 0.001
Со	%	0.0056	0.0059	38	+/- 0.002
Sn	%	0.0035			
Sr	%	0.0027			
Zr	%	0.0037			
Na	%	0.0151	0.0061	31	+/- 0.0023
LOI425	%	8.847	0.09	44	+/- 0.028
LOI650	%	9.548	0.083	43	+/- 0.026
LOI	%	9.78	0.1	43	+/- 0.03

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

<u>Usage</u>

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.