



## CERTIFICATE OF ACCREDITATION

*In terms of section 22(2) (b) of the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act, 2006 (Act 19 of 2006), read with sections 23(1), (2) and (3) of the said Act, I hereby certify that:-*

**MITRA S K SOUTH AFRICA (PTY ) LTD**

**Co. Reg. No.: 2007/031961/07**

**Facility Accreditation Number: T0658**

is a South African National Accreditation System accredited facility  
provided that all conditions and requirements are complied with

This certificate is valid as per the scope as stated in the accompanying schedule of accreditation,  
Annexure "A", bearing the above accreditation number for

### CHEMICAL ANALYSIS

The facility is accredited in accordance with the recognised International Standard

**ISO/IEC 17025:2017**

The accreditation demonstrates technical competency for a defined scope and the operation of a  
quality management system

While this certificate remains valid, the Accredited Facility named above is authorised to  
use the relevant accreditation symbol to issue facility reports and/or certificates

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**Mr M Phaloane**  
**Acting Chief Executive Officer**

**Effective Date: 28 October 2020**  
**Certificate Expires: 29 October 2025**



**ANNEXURE A**  
**SCHEDULE OF ACCREDITATION**

Facility Number: **T0658**

**Permanent Address of Laboratory:**

Mitra SK South Africa (Pty) Ltd  
81 Ceramic Curve Alton  
Richardsbay Unit  
17-19 Rhino Park  
3900

**Technical Signatories:**

Mr SP Sharma (Mn Ore, Ferrochrome and  
Chrome Manganese ore, Coal)  
Mr MW Zakwe (Coal, Cr-ore, Fe-Cr)  
Ms NP Mbuyisa (Manganese Ore & Iron ore)

**Postal Address:**

P O Box 101424  
Meerensee  
Richardsbay  
3901

**Nominated Representative:**

Mr L Ngema

**Tel:** 062 086 8031

**Issue No.:** 09

**Fax:** (035) 751-2697

**Date of Issue:** 20 March 2023

**E-mail:** langelihle@mitrask.co.in

**Expiry Date:** 29 October 2025


Material or Products Tested	Type of Tests / Properties Measured, Range of Measurement	Standard Specifications, Techniques / Equipment Used
<b>CHEMICAL</b>		
Manganese Ore	Determination of Gravimetric Method, Silica (4.37 % -17.32%)	MSK/SOP/Si/001 (Based on ISO 5890:1981)
	Determination of Potention Method, Total Manganese (30.98% -49.15%)	MSK/SOP/TMn/001 (Based in ISO 4298:2022)
	Determination of Titrimetric Method, Total Iron 4.27% -15.6%	MSK/SOP/TFe/001 (Based on ISO 7990:1985)
	Determination of Flame atomic absorption spectrometric method, Alumina 0.239% -6.402%	MSK/SOP/Al/001 (Based on ISO 5889:1983)
	Determination of Flame atomic absorption spectrometric method, motion of Calcium Oxide 1.148% - 5.726%	MSK/SOP/MOCO/001 (Based on 7953:1985)
	Determination of Flame atomic absorption spectrometric method, Magnesium Oxide 0.696% -3.02%	MSK/SOP/MOCO/001 (Based on 7953:1985)
	Determination of Photometric method, Phosphorous 0.0178% - 0.031%	MSK/SOP/PC/001 (Based on ISO 4293:1982)

Coal/ Coke	Determination of Moisture content of coal sample intended for general analysis (air oven method), Moisture content of coal (air oven method) 1% -5%	MSK/SOP/MA/001(Based on SANS 5925:2007)
	Determination of Test method for single stage moisture), Test method of total Moisture of Coal 1% -15%	MSK/SOP/TM/001 (Based on ASTM D 2961-19)
	Determination of Test method Volatile matter in analysis sample of Coal and Coke, Volatile Matter 5% - 30 %	MSK/SOP/VMA/001(Based on ISO 562:2010)
	Determination of Test method for Ash in the analysis sample of Coal and Coke, Ash 10% -30 %	MSK/SOP/AA/001 (Based on ISO 1171:2010)
	Determination of Standard Practice for Proximate analysis of Coal and Coke, Fixed Carbon	MSK/SOP/FC/001 (Based on ASTM D3172-13(2021)E1
	Determination of test methods for Gevof Coap and coke, GCV 3554-7254 Kcal/kg	MSK/SOP/LECO AC500/001 (Based on ASTM D5865-19)
	Determination of Standard test method for sulphur in the analysis sample of Coal and coke, using high temperature tube furnace combustion, Total Sulphur 0.2%-3 %	MSK/SOP/LECOTS/001 (Based on ASTM 4239-18e1)
Cr-Ore	Chromium ores and concentrates- Determination of chromium content- Titrimetric method ,Cr2O3 26.66% - 41.86 %	MSK/SOP/CR-ORE-Cr2O3/001 (Based on ISO 6331:1983)
	Determination of chromium content - Titrimetric method Chromium ores and concentrates-Fe 16.02% -21.45%	MSK/SOP/CR-ORE-Fe/001 (Based on ISO 6130:1983)
	Titrimetric Method Iron Oxide	MSK/SOP/CR-ORE-Fe/001 (Based on ISO 6130:1985)
Chromium ores and concentrates- Determination of silicon content- Molecular absorption spectrometric method and gravimetric method SiO2 3.09%-20.45%	MSK/SOP/CR-ORE-SiO2/001 (Based on ISO 5997:1984)	

Fe-Cr	Ferrochromium and ferrosilicochromium- Determination of chromium content- Potentiometric method Cr 47.79% -50.27%	MSK/SOP/FC-Cr/001 (Based on 4140:1979)
	Ferrosilicon, ferrosilicomanganese and ferrosilicochromium- Determination of silicon content- Gravimetric method Si 2.013% - 5.31%	MSK/SOP/FC-Si/001 (Based on ISO 4158:1978)
	Determination of Total Carbon and Sulphur content-infrared -Absorption (Carbon 6.18%-8.39% and Sulphur 0.0183%-0.6305)	MSK/SOP/FC-CS/002 (Based on ISO 15350:2000)
Fe-ore	Determination of Silica content by Gravimetric method in Iron Ore and Magnetite Silica (3,55%-7.8 %)	MSK/SOP/IO-SiO2/001 (Based on ISO 2598-1:1992)
	Determination of total Iron by Titrimetric method in Iron ore and Magnetite (Iron 52.54%-66.43%)	MSK/SOP/10-TFe/001 (Based on ISO 2597-:2006)

Original Date of Accreditation: 29 October 2015

ISSUED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM



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Accreditation Manager