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MINING THE FUTURE

Mhlabasi Permly Shingange-Ralushai

Professional Summary

16+ years experience

Geophysics and a supporting Geologist at Metminec as well as a Geophysics Lecturer at the Tshwane University of Technology. I am currently managing all Metminec Geophysical projects and working as a supporting Geologist in all geological projects. I am also Lecturing Geophysics and supervising final year Geology students at the Tshwane University of Technology and pursuing a PhD in Geothermal exploration using geophysical methods. My background experience includes positions as mining and exploration geologist in a nickel/chrome mine and Geophysical exploration using various Geophysical methods in commercial projects.

Skills Highlights

Geophysical Exploration: data acquisition, processing & interpretation of geophysical methods, namely, Gravity, Seismic, Magnetic, Resistivity & Radiometrics methods.

Geological Exploration: Supervising Drilling program – Safety management, Review SOP's & PTO's, Tracking budget, Cost control, Reconciliation of invoices, etc.

Petrophysics: Acquisition of oriented samples, conducting petrophysical laboratory measurements, Data processing & interpretation, calculating VGP and age determination.

Evaluation: Supervising grade control, QAQC, Evaluation process for Chrome

Mine geologist: Mapping, sampling, geological interpretations, producing marking plans for blasting, etc.

Experience

GEOPHYSICS CONSULTANT AND SUPPORTING GEOLOGIST

Metminec – Centurion, Gauteng

2021 – to current

Key functions and responsibilities

- Managing Geophysical projects.
- Supporting Geologist in geological projects, including drilling, core logging, sampling and report writing.
- Training assessing 3rd year students in the WIL programme at Metminec
- Review reports



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LECTURER IN GEOPHYSICS & WIL (Work integrated Learning) CO-ORDINATOR IN GEOLOGY DEPARTMENT

Tshwane University of Technology – Pretoria, Gauteng
2016 – to current

Key functions and responsibilities

- Lecturing Geophysics from 2nd year up till post grad level (5th year level)
- Supervising Post grad Geology students
- Co-ordinating WIL and assessing students

INTERN IN GEOPHYSICS DEPARTMENT

Council for Geosciences – Silverton, Gauteng
2014 – 2016

Key functions and responsibilities

- Fieldwork, Research work & laboratory work (petrophysics lab)
- Lead Geophysical projects, Acquire geophysical data, processing and interpretation, including
- the following geophysical methods;
- Magnetics, Gravity, Electromagnetic, Seismic & Resistivity methods.
- Collecting geochemical samples using helicopter.

EXPLORATION GEOLOGIST

Nkomati mine – Machadadorp, Mpumalanga
2010 – 2012

Key functions and responsibilities

- Supervising Drilling
- program – Safety management,
- Review SOP's & PTO's, Tracking
- budget, Cost control, Reconciliation of
- invoices, etc.

DATABASE TRAINEE GEOLOGIST

2008 – 2009

African Rainbow Minerals – Sandton, Gauteng

Key functions and responsibilities

- Managing geological data
- Acquiring and/or application of farm properties around the mine for further exploration
- Mine visits focusing on data that is being collected for ARM mines

PRODUCTION & EVALUATION GEOLOGIST

Nkomati mine - Machadadorp, Mpumalanga
2007 – 2008

Key functions and responsibilities

- Mapping both underground & open pit faces
- Collecting samples
- Core logging
- Producing mucking plans for blasting on the pits.



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- Interpreting geological models
- Grade control of Chrome
- Sampling chrome stockpiles
- Blending of Chrome stockpiles
- Certifying and selling of Chrome to clients.

STUDENT GEOLOGIST

Nkomati mine - Machadadorp, Mpumalanga

2006 – 2007

Key functions and responsibilities

- Mapping both underground & open pit faces
- Collecting samples
- Core logging

EDUCATION

NATIONAL DIPLOMA GEOLOGY

at Tshwane University of Technology, (2010)

BACCALEREAS TECHNOLOGEA GEOLOGY

(Geophysical properties of the Uitkomst complex – Nkomati mine) at Tshwane University of Technology, (2012)

MASTERS TECHNOLOGEA GEOLOGY

(Palaeomagnetic studies in the Middlewater complex located at the footwall of the Bushveld complex) at Tshwane University of Technology, (2017)

DOCTOR OF PHILOSOPHY IN SCIENCE (candidate)

Tshwane University of Technology. Research proposal: “Geothermal exploration in South African Hotsprings for low-enthalpy geothermal energy potential”.

Publications and Papers

P. Shingange (2011). Geophysical Exploration in Nkomati mine, B-Tech Thesis.

L.P. Maré, P. Shingange and N.T. Mokoena (2015). Petrophysical characterization of the Namaqua Metamorphic Province. 14th SAGA Biennial Technical Meeting and Exhibition, 6-9 September 2015 at Champagne Sports Resort in the Drakensberg, South Africa (Accepted poster).

L.P. Maré, P. Shingange and N.T. Mokoena (2015). Rock magnetic characterization of the Namaqua Metamorphic Province. Council for Geoscience, report number 2015-0033 (Unpublished report).

L.P. Maré, P. Shingange and N.T. Mokoena (2015). Physical property characterization of the Namaqua Metamorphic Province. Council for Geoscience, report number 2015-0055 (Unpublished report)

P. Shingange, C Fourie and L.P Maré (2020). Geophysical studies of the Middlewater Complex situated on the footwall of the Bushveld Complex, M-Tech Thesis.