

AMAHLE ANDISIWE SHEZI

Johannesburg, South Africa | +27 84 500 2960 / +27 71 358 0872 | amahlrshzez@icloud.com

PROFESSIONAL SUMMARY

Geological Sciences graduate currently completing a Postgraduate Engineering Diploma in Metals and Metallurgy at the University of the Witwatersrand. Combines geological fieldwork, mineral identification, geochemical and structural analysis with practical exposure to mineral processing, metallurgical testing, process monitoring, data analysis, mass and energy balances and technical reporting. Strong analytical and problem-solving foundation suited to business analysis, process improvement, mining, technical studies, mineral processing and engineering project environments.

EDUCATION

University of the Witwatersrand, Johannesburg

Postgraduate Engineering Diploma in Metals and Metallurgy | February 2026 – December 2026

Relevant: Mineral Processing; Mass & Energy Balances; PFD Interpretation; Plant Monitoring & Optimisation; Metallurgical Accounting; Process Control; Solid-Liquid Separation; Sampling & Laboratory Analysis; Technical Reporting.

University of KwaZulu-Natal

Bachelor of Science in Geological Sciences | February 2023 – November 2025

Relevant: Geological Mapping; Mineral Identification; Geochemical & Structural Analysis; GIS; Remote Sensing; XRD; XRF.

WORK & PRACTICAL EXPERIENCE

BASF Chemical Company

Vacation Work | 2024 – 2026

- Gained industry exposure in chemical manufacturing, including operations, process optimisation, quality, safety and continuous improvement.
- Developed exposure to structured technical problem-solving in an industrial environment.

Metallurgical Laboratory Experience | February 2026 – December 2026

- Performed pellet quality testing and laboratory experiments relevant to mineral processing and metallurgical evaluation.
- Recorded, analysed and interpreted laboratory results using Microsoft Excel.
- Applied laboratory safety procedures and developed practical capability in metallurgical testing and technical documentation.

Geology Fieldwork | February 2023 – November 2025

- Conducted geological mapping and structural measurements in field environments.
- Identified minerals and rock types and collected/interpreted geological data.
- Prepared technical field reports from field observations and interpreted results.

BUSINESS ANALYSIS & LEAN SIX SIGMA COMPETENCIES

- Lean Six Sigma methodologies and principles — working knowledge applicable to process improvement and operational analysis.
- DMAIC: Define, Measure, Analyse, Improve and Control.
- Root Cause Analysis (RCA) for structured investigation of process and operational problems.
- 5 Whys Analysis for identifying underlying causes of recurring issues.
- Fishbone / Ishikawa Analysis for categorising and analysing potential root causes.
- Pareto Analysis (80/20 Principle) for prioritising significant causes and improvement opportunities.
- Process Mapping and Value Stream Mapping to understand workflows, identify bottlenecks and support process improvement.
- Gap Analysis to identify differences between current-state performance and desired outcomes.
- Failure Mode and Effects Analysis (FMEA) for identifying potential process failures, effects and risks.
- Process optimisation, continuous improvement and efficiency analysis.
- Data analysis, interpretation and structured technical problem-solving.
- Technical documentation, professional report writing and presentation support.
- Cross-functional communication and collaboration in technical/project environments.

MINING ENGINEERING & TECHNICAL STUDY COMPETENCIES

- Mine planning, mine design, scheduling and optimisation — academic/working knowledge applicable to graduate and junior technical mining environments.
- Mining studies and technical study concepts, including MWP, LOM, DD, Scoping, PFS and BFS.
- Pit and stope optimisation concepts and mining equipment selection.
- Mine cost modelling concepts to support financial evaluation and project decision-making.
- Trade-off studies and evaluation of development options.
- Technical project coordination and contribution to multiple technical workstreams.
- Technical report preparation and understanding of Competent Person's Report (CPR) requirements and technical reporting standards.

ENVIRONMENTAL & SHEQ COMPETENCIES

- Environmental monitoring, inspections and compliance activities.
- Environmental audits and site assessments.
- Environmental Management Programme/Plan (EMP) implementation and monitoring.

- Environmental reports, registers and project documentation.
- Waste management, pollution prevention and environmental good practices.
- Water, soil and other environmental sampling activities.
- Identification of environmental risks and reporting of non-compliance.
- SHEQ and environmental awareness activities.
- Professional liaison with clients, contractors and project teams.
- Fieldwork readiness and willingness to travel to project sites.

TECHNICAL COMPETENCIES

Mineral Processing & Metallurgy: Mineral processing fundamentals; PFDs; mass and energy balances; metallurgical accounting; process monitoring and optimisation; solid-liquid separation; flocculation and thickening; equipment performance monitoring.

Geoscience: Geological mapping; mineral identification; geochemical and structural analysis; GIS; remote sensing; XRD/XRF; field data interpretation.

Analytical & Reporting: Data analysis; statistical interpretation; root-cause analysis; technical assessment; process improvement; technical report writing and documentation.

Software: Microsoft Excel, Word, PowerPoint and email; GIS exposure.

SELECTED ACHIEVEMENTS

- Awarded BASF Scholarship, 2024–2026.
- Completed BSc in Geological Sciences, UKZN, 2025.
- Bachelor's Pass Grade 12 (Matric), 2022.
- Prefect and Representative Council of Learners (RCL) in high school.

CAREER TARGET

Junior Business Analysis | Process Improvement | Lean Six Sigma | Data Analysis | Mining Engineering | Mine Planning & Technical Studies | Mineral Processing | Metallurgy | Process Engineering | Environmental Engineering | Geology | Engineering-in-Training / Graduate Opportunities