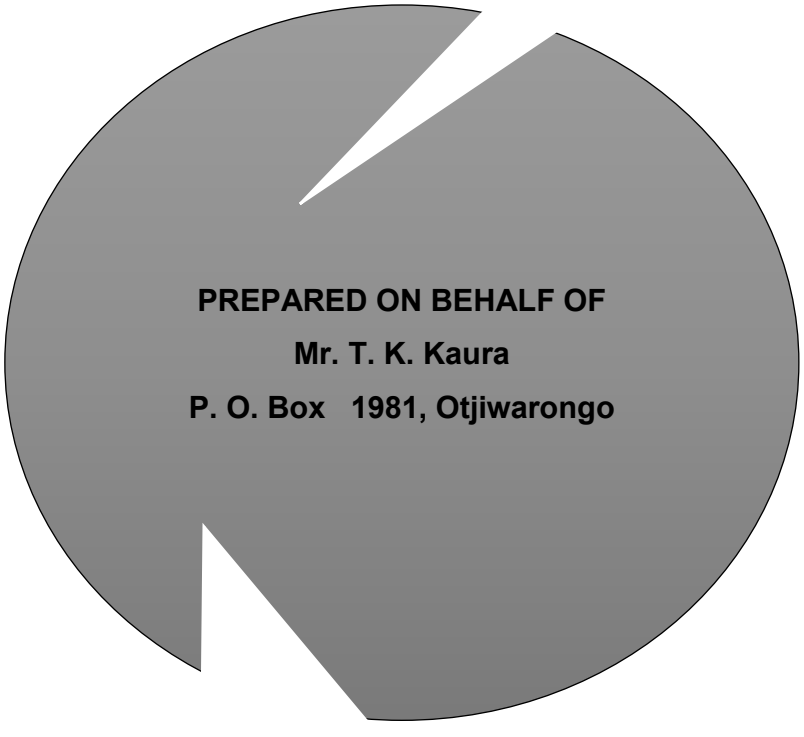
ENVIRONMENTAL IMPACT ASSESSMENT AND MANAGEMENT PLAN FOR THE PROPOSED MINING OF INDUSTRAIL MINERALS ON MINING CLAIMS No. 74840, 74841 and 74843 IN KARIBIB CONSTITUENCY, ERONGO REGION, NAMIBIA



2026

This EIA and EMP is prepared to support an application for an amendment of the environmental clearance certificate No 2401927 on mining claims number.: 74840, 74841 and 74843 for mining Semi Precious Stone to Mining of Industrial Minerals in compliance with the Environmental Management Act (EMA, no. 7 of 2007) and EMA's regulations. The proposed area is located on a private farm, about 33 km North East of Arandis, town and 48 km South West of Usakos town in Erongo region, Namibia.

Prepared

By

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January, 2026

IMPORTANT NOTICE

"Despite any other law to the contrary, a person may not undertake a listed activity, unless the person is a holder of an environmental clearance certificate in relation to that activity" Environmental Management Act, No. of 2007).

The proponent currently has an environmental clearance certificate (No.241927) for mining semi-precious stones and intend to amend it to industrial minerals.

PROJECT DETAILS

Title	ENVIRONMENTAL IMPACT ASSESSMENT AND MANAGEMENT PLAN FOR THE PROPOSED MINING OF INDUSTRAIL MINERALS ON MINING CLAIMS No. 74840, 74841 and 74843 IN KARIBIB CONSTITUENCY, ERONGO REGION, NAMIBIA.
Author	Mr. Tobias Endjambi (Lead EAP) – Portal Research and Engineering CC.
Client	T. K. Kaura
Report Status	Environmental Impact Assessment and Environmental Management Plan for submission to I&APs.

EXECUTIVE SUMMARY

Mr. T. K. Kaura (the proponent) presently has an existing Environmental Clearance Certificate (ECC No.: 2401927) valid until 21/10/2027 for mining of Semi-Precious Stones and intend to amend the ECC to Industrial Minerals (mica). The proposed area is located on a farmland about 33 km North East of Arandis town in the Erongo region, Namibia. The proponent has appointed Portal Research and Engineering CC (consultants) to apply for the Environmental Clearance Certificate (ECC) at the Ministry of Environment, Forestry and Tourism (MEFT) as required by the Environmental Management Act No. 7 of 2007 and its regulations of 2012. Therefore, the consultant has prepaid this Background Information Document (BID) on behalf of the proponent to support the application of the ECC for the proposed mining of industrial minerals on mining claim No. 74840, 74841 and 74843 in the Kaibib Constituency. The EIA process included preparation of a Background Information Document (BID), public adverts in local newspapers, and invitation for participation of the interested and affected parties (I & APs), public consultation process and assessment of the impacts and identification of impact mitigation measures.

Project description

The project plans to extract industrial minerals from a private farm. The extraction will involve open-cast quarrying with heavy equipment like bulldozers, excavators, loaders, and tipper trucks. Environmental management practices will be implemented to address identified impacts. Mica extracted will be packaged in steel shipping containers and distributed by truck. After mining concludes, the site will be rehabilitated to restore it to an environmentally sustainable state, which include backfilling and grading.

Project Motivation

Mining of industrial minerals may be justified for economic development, resource utilization, advancement in technology, and strategic relevance, particularly given the successful extraction of other minerals such as uranium in the region. Thus, mining of industrial minerals could boost economic growth, create jobs, and promote infrastructural development. However, there is a need for mining processes to prioritize responsible and ethical mining practices to minimize environmental impact while balancing conservation goals with developmental needs.

Environmental Policies and Legislations

The EIA was conducted in compliance with Namibia's environmental legislation, specifically the country's Environmental Management Act (EMA) No. 7 of 2007, and its 2012 regulations. The EMA and its regulations provide forth the procedure for compiling reports on EIA as well as the minimal requirements for such studies.

The EMA regulations condition that an EIA should solicit input from community that may be impacted by the project. A public meeting was held and a Background Information Document (BID) was presented to ensure that public opinions, especially those of interested and affected parties (I&APs), were taken into account during the EIA process to ensure maximum sustainable environmental management of the proposed activities. Other relevant legislation were discussed in details within the EIA report.

Objectives and Terms of References

The objective of this report is to provide an environmental impact assessment of the proposed project to support an application for the ECC in order to mine industrial minerals on mining claims No. 74840, 74841 and 74843: . This include to:

- *Carry out environmental impact assessment on behalf of the proponent;*
- *Develop environmental management plan*
- *Apply for the ECC on behalf of the proponent.*

No detailed terms of references (ToRs) were provided by the proponent. The appointed Environmental Assessment Practitioner (EAP), instead, relied on the requirements of the Environmental Management Act (No. 7 of 2007) (EMA) and its Environmental Impact Assessment (EIA) Regulations (GN. No. 30 of 2012) to conduct the study.

Methodology

The environmental impact assessment (EIA) methodology employed for the proposed mining of industrial minerals consisted of several key steps. Firstly, baseline information was gathered through fieldwork and from literature to establish the existing environmental conditions in and around the project area. Secondly, public participation process was initiated. This was done through newspaper adverts, notice boards adverts and through email invitations. Public participation process was aimed

to provide an opportunity for stakeholders, including local communities, environmental organizations, and governmental bodies, to express their concerns, provide input, and ask questions related to the project's potential environmental impacts. To assess the environmental impact of the project, a Leopold matrix was utilised. The Leopold matrix is a tool that enables the systematic evaluation of the potential impacts of a project on the environment. Based on the findings of the impact assessment, an environmental management plan was developed. This plan aimed to identify mitigation measures to minimise or offset any adverse environmental impacts resulting from mining activities which include the initial phase of setting up infrastructures.

EIA process

EIA Timeline Summary

EIA PROCESS AND TIMELINES	
• 1 x advert in the Confidente newspaper:	05-11 July 2024.
• 1 x advert in the Confidente newspaper:	28 June – 04 July 2024.
• 1 x advert in the Namib Times newspaper:	28 June 2024.
• 1 x advert in the Namib Times newspaper:	05-11 July 2024.
• Release of BID to registered I&APs:	28 June 2024.
• Public meeting	27 September 2025
• Release of draft EIA and EMP Reports and availability to I&Aps for review:	03 -10 October 2025.
• Finalisation of EIA and EMP Reports.	17 October 2025
• Upload all outstanding documents on the EIA portal.	January 2025

EIA Key Findings

The environmental impact assessment identified several potential negative impacts associated with the proposed mining operations, including noise, dust and gaseous emissions, risks to human health and safety, habitat alteration, land and topsoil loss, and possible effects on small fauna such as reptiles. Most of these impacts are expected to be low to medium in magnitude and largely temporary. While the project will result in some modification of the natural landscape, impacts on fauna are anticipated to be minimal due to the low abundance and diversity of species in the area and the absence of significant vegetation as a result of arid Namib Desert conditions. In contrast, the project is expected to generate positive socio-economic benefits, including employment creation and improved livelihoods for communities in central coastal Namibia.

Conclusion and Recommendations

The environmental impact assessment and the development of the Environmental Management Plan demonstrate a proactive commitment to environmental stewardship and sustainable development. With effective implementation and ongoing review of the EMP, the proposed mining of industrial minerals under claim licences 74840, 74841, and 74843 is expected to deliver socio-economic benefits while safeguarding the natural environment. It is therefore recommended that an Environmental Clearance Certificate be granted, subject to compliance with the EMP and associated approval conditions.:

- Extraction of mica should not take place in the riverbed.
- Rehabilitation (filling of trenches) should be done parallel to mica extraction. This means filling of trenches should be done immediately after a working site is completed and before moving to the next site.
- The Proponent must implement mitigation measures proposed in the Environmental Management Plan (EMP), hence making these documents legally binding documents.
- The EMP should be regularly reviewed and submitted to the relevant authorities including MEFT.
- An environmental management officer or consultant should be employed/contracted by the proponent to ensure EMP is implemented and updated regularly.
- MEFT officials may occasionally conduct spot inspections (non-auditing) without prior notice, or they may schedule an auditing inspection with dates set in advance of the site visit. As a result, any authorised representative of the Office of the Environmental Commissioner must be granted access to the site at any time during working hours throughout the mining cycle.
- In an event, unforeseen environmental impact arises, relevant authority and affected communities must be notified urgently and operation should be suspended until an approved mitigation strategies are conferred to the proponent.
- Annual Environmental Management Report must be made available to relevant authority and stakeholders.
- Consideration should be made by the proponent to reserve some employment opportunities for qualified local people.
- A copy of the Environmental Clearance Certificate (ECC), EMP, Environmental Audit and bi-annual monitoring reports must be kept at the site of the authorised activity and readily

available for inspection by relevant authority including officials from MEFT and other stakeholders.

- Any other condition/recommendation that the Environmental Commissioner can add as he/she deem fit.

DISCLAIMER

Duties of proponent

The proponent must designate an environmental assessment practitioner (EAP), to manage the assessment process, provide the EAP with access to information at the disposal of the proponent regarding the application whether or not the information is favourable to the proponent, and ensure that the environmental assessment procedures, specified in the Act, these regulations and guidelines, for the proposed activity are followed (Environmental Impact Assessment Regulations: Environmental Management Act, 2007).

Duties of Environmental Assessment Practitioner (EAP)

An EAP designated in terms of regulation 3, must perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant, comply with the Act, these regulations, guidelines and other applicable laws and disclose to the proponent, competent authority and the Environmental Commissioner all material information in the possession of the EAP that reasonably has or may have the potential of influencing -

(i) Any decision to be taken with respect to the application in terms of the Act and these regulations; or

(ii) The objectivity of any report, plan or document to be prepared by the EAP in terms of the Act and these regulations" (Environmental Management Act, 2007); regulations of 2012).

Therefore, The EAP has completed this work to the best knowledge and information provided for by the Proponent, available information in literature and field observations, to provide the best advice possible.

DECLARATION

I hereby declare that I am the lead EAP (Environmental Assessment Practitioner) for this project and consulting under Portal Research and Engineering CC. I further, declare that I have no business, financial, personal or other interests in the proposed project, application or appeal in respect of which I was appointed other than fair remuneration for work performed. Therefore, there are no circumstances that compromise the objectivity of this assessment and recommendations, thereof.

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LIST OF ABBREVEAITON/ ACRONYMS

BID	Background information document
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
EC	Environmental Commissioner
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
I&APs	Interested and Affected Parties
MEFT	Ministry of Environment, Forestry and Tourism
MME	Ministry of Mines and Energy
TORs	Terms of References
VECs	Valued Ecosystem Components

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1 INTRODUCTION, BACKGROUND AND SCOPE OF THE PROJECT

1.1 Project Overview

The proponent, Mr. T. K. Kaura, intends to mine industrial minerals (mica) from a mining claims number: 74840, 74841 and 74843 covering an area of approximately 47 hectares (see ***Table 1*** for geographical coordinates and ***Figure 2*** for the locality map). The area is located on a private farm about 33 km from Arandis town in the Karibib Constituencyof the Erongo Region in Namibia. Furthermore, the claims falls under an Exclusive Prospecting Licence (EPL) No: 7862 which is owned by JTD Mining Group PTY (LTD). A consent letter was obtained from JTD by the proponent to mine on the respective EPL (APPENDIX E). Presently the proponent has an existing Environmental Clearance Certificate (ECC) valid until 21/10/2027 (APPENDIX D) for mining of Semi-Precious Stones and intend to amend the ECC to Industrial Minerals.

In terms of the Environmental Management Act (EMA) No 7 of 2007, the proposed mining activities may not be undertaken without an environmental clearance certificate. For this reason, the proponent appointed the consultant to facilitate the EIA process and compile required reports to support application for the ECC.

Table 1: *Geographical positions of the mining claim number 74840, 74841 and 74843.*

Latitude (South)	***Longitude (East)***
22°10' 44''	*15°09' 43''*
22°10' 26''	*15°09' 37''*
22°10' 27''	*15°10' 18''*
22°10' 45''	*15°10' 18''*
22°10' 45''	*15°10' 08''*
22°10' 36''	*15°10' 08''*
22°10' 36''	*15°09' 48''*
22°10' 44''	*15°09' 49''*

1.2 Description of the Location

The proposed mining site falls under mining claim licence numbers 74840, 74841 and 74843 and is located within the Karibib Constituency of the Erongo Region. The site is situated approximately 48 km south-west of Usakos Town and about 33 km north-east of Arandis Town, close to the boundary with the Daures Constituency and within reasonable proximity to the Karibib Constituency (Figure 1). This location places the project within a broader regional landscape characterised by mining, conservation, tourism, and communal land uses.

The Karibib Constituency has a mixed socio-economic profile, with livelihoods supported by small urban centres, farming activities, transport and logistics services, and employment opportunities linked to the mining sector within the wider Erongo Region. The constituency experiences an arid to semi-arid climate, marked by low and variable rainfall, high daytime temperatures, and cool nights, which influence water availability, settlement patterns, and land-use practices. While the proposed mining site is not located within a proclaimed national park, the Erongo Region is of high environmental and economic importance. Parts of the region fall within Dorob National Park and Namib-Naukluft National Park, both of which support biodiversity conservation and tourism based on desert landscapes and unique wildlife. In addition, the region is a well-established mining hub, with major uranium mining operations such as Rössing, Husab, and Langer Heinrich mines located primarily within the Arandis and Swakopmund areas. These operations contribute significantly to regional employment and national economic growth.

Mining and tourism remain key drivers of socio-economic development in the Erongo Region. However, they also present environmental and land-use challenges that require careful management. There is therefore a need to strike a balance between economic development, environmental protection, and community wellbeing across constituencies within the region. The proposed mining of industrial minerals (mica) within the Karibib Constituency has the potential to contribute positively to local and regional economic development, provided that appropriate planning, environmentally acceptable mining methods, and effective mitigation measures are implemented to minimise environmental impacts and ensure long-term sustainability.

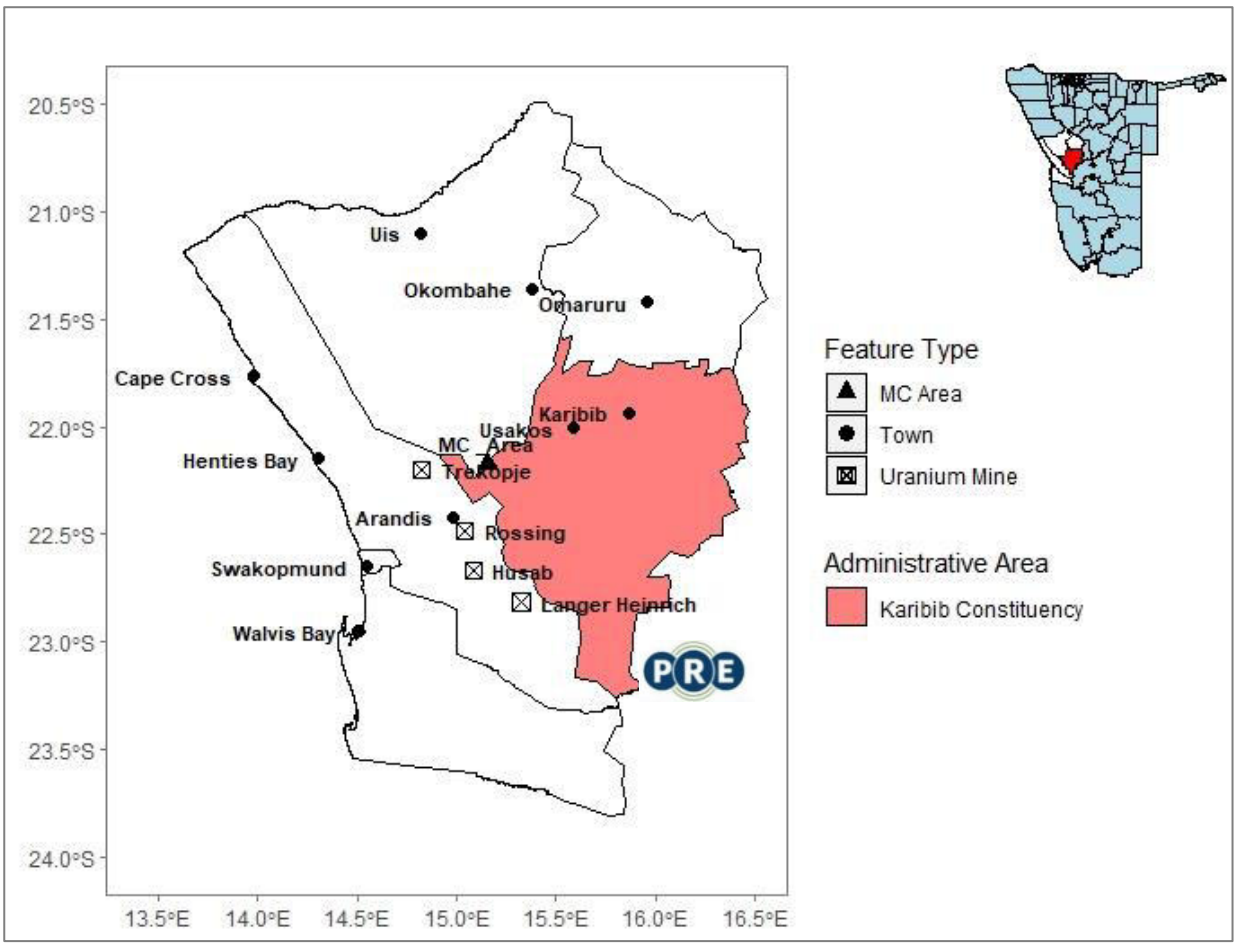

Figure 1: *Namibian map depicting the location of Karibib Constituency and Study Area.*

1.3 Environmental impacts

The commissioning of mining operations requires the setup of office, storage areas, and support facilities such as ablution units. Although these are largely temporary structures, their presence and use can still place pressure on the surrounding environment and nearby communities. Environmental impacts may arise throughout both the set-up and operational phases, including increased traffic, changes in land use, dust, noise, and air emissions, as well as potential loss of biodiversity, habitat disturbance, higher water demand, and socio-economic effects. In addition, mining activities can lead to the generation of solid waste and wastewater, which, if not properly managed, may further affect the environment. The solid waste and waste water generation will include:

- Material removed to access the mica deposit, which may contain soil, rocks, and other non-valuable materials.
- Residues or waste material left after the mica has been extracted, which may contain fine particles of mica mixed with other minerals and materials.
- Alteration of the landscape due to quarrying activities, including the creation of pits, roads, and other infrastructure.
- Sewage and wastewater.

As a result, an Environmental Impact Assessment (EIA) is required to identify, evaluate, and determine the extent and significance of potential environmental impacts associated with the planned set-up, construction-related activities, and mining operations.

1.4 Purpose of Environmental Impact Assessment

According to the Environmental Management Act No. 7 of 2007, an EIA must be conducted for development activities linked to *resource removal, including natural living resources, transportation, industrial process as well as land use* and transformation which is relevant to this study. Consequently, this study was carried out to investigate the potential impact of the proposed development on the environment as well as the socioeconomic elements of the impacted populations. The EIA was conducted in compliance with the Environmental Management Act No. 7 of 207 and its 2012 regulations to inform the Environmental Commissioner on the findings of the EIA study.

1.5 Terms of References

The proponent has appointed Portal Research and Engineering CC to facilitate the EIA process in accordance with environmental management regulations, with the following terms of reference (TORs):

- Prepare adverts for placement in local newspapers;
- Visit the proposed site and prepare BID;
- Carry out the public consultation process;
- Conduct an EIA/Scoping study for the planned fuel retail facility in accordance with the EMA (no. 7 of 2007) and its Regulations of 2012;

- Compile the EIA/scoping and EMP reports for submission to relevant authority, and assist the proponent to apply for ECC.

1.6 Deliverables

Deliverable of this project are:

- Background information document (BID);
- EIA/screening Report;
- Draft EIA/scoping and EMP Reports;
- Final EIA/scoping and EMP Reports, and
- Provide assistance with application for Environmental Clearance Certificate.

2 DECRIPTION OF THE MINING PROSPECT

2.1 Licensed mining claim site and surrounding land use

The project entails the extraction of industrial minerals (mica) from state-owned land, as illustrated in Figure 2. The proposed mining site is located within the Karibib Constituency of the Erongo Region and operates under mining claim licence numbers *74840, 74841 and 74843*, covering a combined area of approximately 47 hectares.

The proposed mining site is situated approximately 33 km north-east of Arandis Town and about 48 km south-west of Karibib Town. The site lies close to the boundary with the Daures Constituency and within a broader regional landscape (Figure1) characterised by mining, conservation, and limited agricultural activities.

The Erongo Region is a well-established mining province. In addition to the major uranium mining operations at Rössing, Husab, and Langer Heinrich, mining activities also occur around Karibib and Usakos towns, including the Navachab Gold Mine, dimension stone and marble quarries, and various small-scale and industrial mineral operations. Together, these activities contribute significantly to regional economic development and employment, while also necessitating responsible environmental management to ensure land-use compatibility and long-term sustainability.

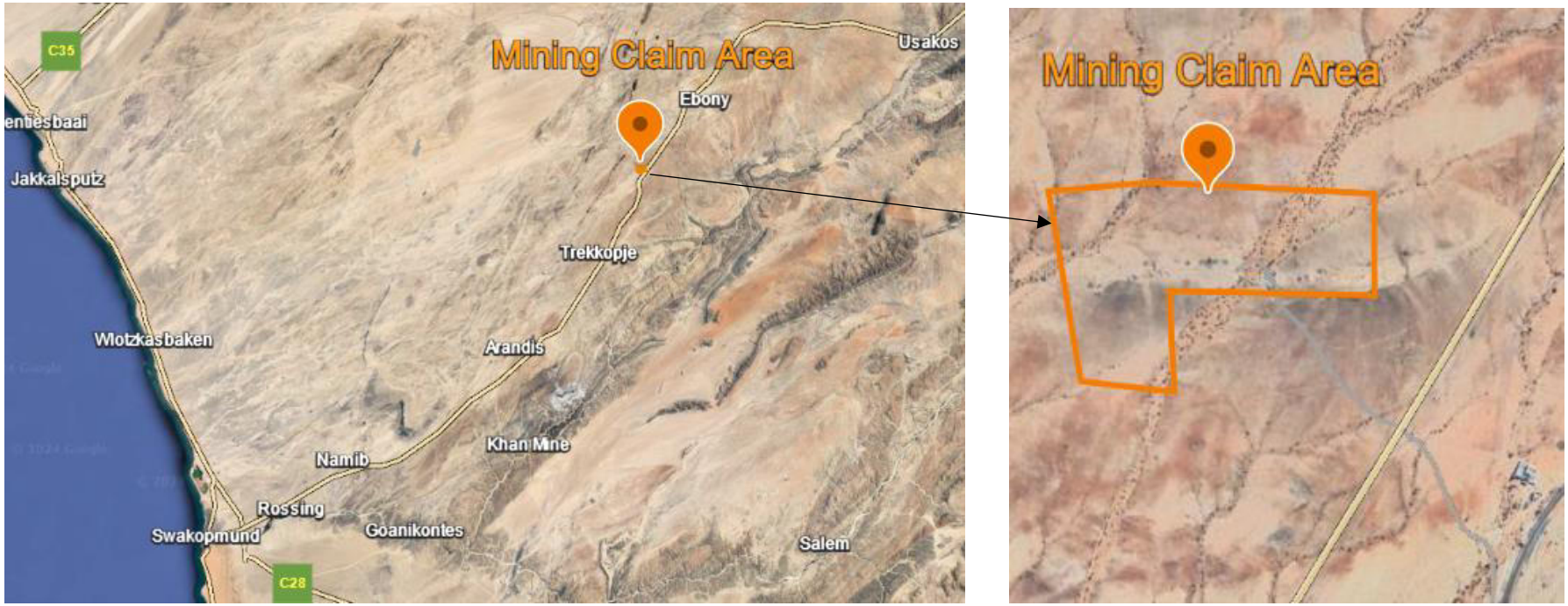

Figure 2: *Geological locality map of the proposed mining activities (CL:* 74840, 74841 and 74843*).*

2.2 Infrastructure Establishment

To minimise environmental disturbance, the project will utilise temporary and environmentally considerate infrastructure for on-site operations. Site facilities will include offices, storage areas, security accommodation, and ablution facilities, all designed to be modular and removable. Office, storage, and security functions will be housed in three standard steel shipping containers, each measuring approximately 6 m (length) × 2.4 m (width) × 2.6 m (height). Subject to the scale of mica extraction, the number of containers may be increased to a maximum of six. Ablution facilities fitted with septic tank systems will also be established on site. Power requirements will be met through solar energy, reducing reliance on fossil fuels and limiting emissions. Water supply for operational and domestic use will be sourced from an existing borehole on the farm.

Prior to installation of these facilities, limited excavation works will be undertaken to prepare foundations for the containers, ablution units, and septic tanks. All structures will be equipped with fire extinguishers, supported by fire incident management measures and standard occupational health and safety protocols. The selection of modular and transportable infrastructure will facilitate efficient site rehabilitation and complete removal of structures upon cessation of mining activities. All materials will be removed and disposed of at approved waste disposal facilities, ensuring compliance with environmental and safety requirements..

2.3 Mining Process

Industrial minerals (mica) will be extracted through open-cast quarrying or mining methods involving mechanical excavation to expose mica-bearing ore. The process will utilise heavy machinery such as bulldozers, excavators, front-end loaders, and tipper trucks. Bulldozers will be used to clear and level the ground, while excavators will dig into the earth to access the mica-rich layers. Front-end loaders will then collect the excavated ore and load it onto tipper trucks for transportation to the designated storage facility. It is important to acknowledge that operating such heavy machinery can lead to environmental impacts, including habitat disturbance, dust generation, and emissions. To address these concerns, appropriate

environmental management measures will be implemented to minimize adverse effects and promote responsible and sustainable mining practices.

- **Packaging and Distribution**: The extracted mica will be packaged and stored in steel shipping containers and then distributed to consumers. Transportation will be done using trucks.
- **Reclamation**: Once quarrying operations is completed, the site will undergo reclamation to restore it to a safe and environmentally sustainable condition. This may include backfilling, grading and other measures to mitigate the impact of mining activities and promote ecosystem restoration.

3 PROJECT MOTIVATION AND DESIRABILITY

Given the successful extraction of minerals such as uranium in the Erongo Region, the proposed mining of industrial minerals (mica) is justified by considerations of resource utilisation, economic development, technological advancement, and strategic importance. As the regional population continues to grow due to urbanisation and migration, the demand for employment opportunities is increasingly pressing. Mining industrial minerals presents a potential avenue for job creation and economic empowerment, particularly in light of high youth unemployment both within the region and nationally.

The planned extraction of mica also aligns with principles of sustainable resource use, ensuring that the region's mineral wealth contributes to the wellbeing of local communities and the broader economy. Expanding the mining sector to include industrial minerals enhances the region’s economic resilience and strategic significance, complementing its established uranium mining industry.

To minimise environmental impacts and balance conservation objectives with developmental needs, mining activities will adopt ethical and responsible practices, prioritising sustainable methods throughout the project lifecycle.

4 RELEVANT LEGISLATIONS

To support the application for an Environmental Clearance Certificate, Portal Research and Engineering CC conducted an Environmental Impact Assessment (EIA) and developed an Environmental Management Plan (EMP) for the proposed extraction of industrial minerals (mica) under mining claim No. 74840, 74841 and 74843. The study was undertaken in accordance with the relevant Namibian legal and regulatory framework, as outlined below:

4.1 The Constitution of Namibia

The principles of state policy enshrined in the Republic of Namibia's Constitution enable the state to enact laws that can be used and enforced by the country's judicial system. In terms of the environment and natural resources, the Republic of Namibia's constitution states in Article 95(1),

"The State shall actively promote and maintain the welfare of the people by adopting policies aimed at… The maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future*…".* As a result, natural resource conservation related policies and Acts have been enacted.

In addition, Article 91 (c) of the constitution state one the functions of the Ombudsman as:

"the duty to investigate complaints concerning the over-utilization of living natural resources, the irrational exploitation of non-renewable resources, the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia".

4.2 Environmental Assessment Policy for Sustainable Development and Environmental Conservation.

The Environmental Assessment (EA) Policy was approved in August 1994 by Cabinet Resolution 16.8.94/002. The EA policy aims to promote sustainable development and economic growth while protecting the environment in the long term. The policy:

- Promotes sustainable development;

- Underscores the need to undertake Environmental Assessments (EAs) for all policies, programmes and development projects in Namibia;
- Encourages developers to practice “reduction-at-source” in pollution control and waste management;
- Describes the EAs process, and
- Stresses on the need to incorporate international accepted norms.

4.3 The Environmental Management Act No 7 of 2007

The environmental impact assessment (EIA) procedure for this project was conducted in compliance with Namibia's environmental legislation, specifically the country's Environmental Management Act (EMA) No. 7 of 2007. The EMA, No. 7 of 2007 was promulgated in December 2007 and commenced in 2012, with the goal of fostering sustainable environmental management and natural resource usage. The Act outlines decision-making principles, creates the Sustainable Development Advisory Council, and appoints the Environmental Commissioner.

The EMA, No. 7 of 2007 focuses inclusively on:

- Protection of Namibia's valuable environment;
- Promoting renewable resource use,
- Community involvement;
- Protection of ecological systems:
- Encouragement of developers to choose environmentally friendly options Conducting impact assessments taking concerns and interests into account
- Preventing environmental damage.

4.4 The Environmental Management Act regulations of 2012

The Namibian government gazetted the Regulation for the Implementation of Environmental Management Act No. 7 of 2007 in February 2012. The regulations provide guidelines on how an EIA should be conducted, and this information includes:

- List of activities that requires environmental impact assessment to be conducted.
- General requirements for EAP's
- Application for environmental clearance certificate
- Scoping report format
- Terms of reference
- Public consultation process
- Competent authority's responsibilities

4.5 Pollution Control and Waste Management Bill (guideline only)

The Pollution Control and Waste Management Bill among others is aimed at promoting sustainable development, prevent and regulate the discharge of pollutants in the air, water, and land as well as to regulate noise, dust and odor pollution.

4.6 Public and Environmental Health Act 1 of 2015

This Act is aimed to provide a framework for a structured uniform public and environmental health system in Namibia; and to provide for incidental matters.

4.7 National Heritage Act No. 27 of 2004

The National Heritage Act No. 27 of 2004 was brought into force on 1 September 2005 by GN 105/2005 (GG 3490). The Act is aimed at providing protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register; and to provide for incidental matters. **A consent letter for the National Heritage Council was acquired (*Appendix F*)**.

4.8 Petroleum Products and Energy Act of Namibia (Act No. 3 of 2000)

The Act includes provisions for petroleum product conservation as well as distribution cost savings. Furthermore, the act established operational criteria for the petroleum industry, which included the following:

- The premises where petroleum products are stored

- Licensing of outlets and petroleum product wholesalers
- Conducting of business in respect of petroleum products, including:
    - Application of health, hygiene, safety and environmental standards and requirements.
    - Minimum safety standards, fire-fighting, security drills and contingency plans, pre-planning against fires and pollution, security of premises, safety equipment, emergency measures and provisions for product security.
- Premises where petroleum products are stored, including the facilities, equipment, design and construction.
- Maintenance of security and the continuity of petroleum product supplies in Namibia, and the maintenance of contingency and reserve petroleum product stocks.

There will be a need to store petroleum products on site for vehicle use.

5 METHODOLOGY AND APPROACH

5.1 Introduction

The approach used for the Environmental Impact Assessment (EIA) of the proposed industrial mineral extraction on mining claim licence No. 74840, 74841 and 74843 is covered in this section. The EIA process encompassed various stages, including an initial field survey, examination of development project designs, baseline information establishment, public consultation, assessment techniques, analysis of alternatives, and mitigation of environmental impacts.

5.2 Environmental Impact Assessment process and procedures

The EIA process and procedure is guided by the Environmental Management Act (no. 7 of 2007) and EIA Regulations of 2012 as illustrated in ***Figure 3***:

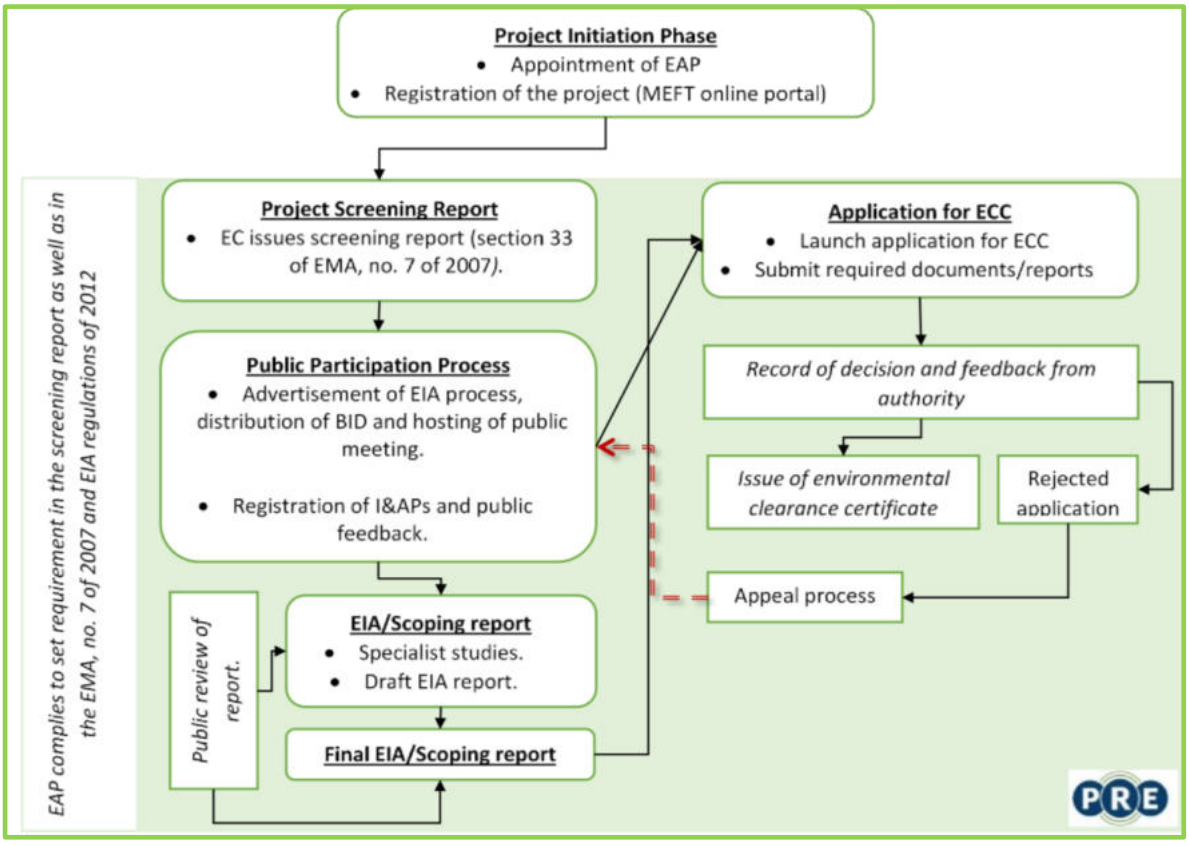

Figure 3: EIA process for the proposed mining of industrial minerals on the mining claim 74840, 74841 and 74843 in the Karibib Constituency.

5.3 Environmental Baseline Information

A desktop research approach was used to assess reports and published material in order to gather baseline information on the proposed project and project location. This procedure comprised gathering a summary of the physical, biological, and human components of the environment in the area of interest.

5.4 Field Surveys/Site visit

A site visit was carried out to inspect the study's area and verify the environmental baseline information acquired during the initial desk study phase. In addition, the site visit allowed the consultants to do a preliminary feasibility investigation on the project.

5.5 Public Consultation Process

The Environmental Impact Assessment process necessitated the participation of interested and affected parties (I&APs) by the proposed development. The Environmental Management Act No 7 of 2007 (regulations of 2012), and specifically section 21 call for public participation in the EIA process. Due to this requirement, the proponent placed notices in two local newspapers calling for registration of (I&APs) (***Appendix B***). Notices were also posted on the notice boards of the Erongo Regional Council, the Ministry of Mines and Energy in Swakopmund, and the Arandis Constituency office in Arandis***.*** A background information document for the proposed project was produced and disseminated to the I&APs as well to MEFT. Furthermore, the draft EIA report was distributed via email to the registered I&Aps.

5.6 Environmental Impact Assessment Methods

Different approaches were used to assess both the positive and negative impact of the proposed extraction of the industrial minerals (mica) as described below:

5.6.1 Leopold matrix method

A Leopold matrix was used for assessing the impact of the extraction of industrial minerals (mica). The Leopold matrix is a method for evaluating and numerically weighing potential impacts. It is a qualitative environmental impact assessment approach that includes the following levels: impact description, prediction and evaluation.

5.6.2 Valued ecosystem components

The identification of Valued Ecosystem Components (VECs) was the first stage in the Leopold matrix assessment approach. VECs constitute essential parts of the physical, biological and socioeconomic environment that are expected to be among the most vulnerable receptors to the impact of the planned extraction of mica (***Table 2***).

Table 2*: Identified VECs.*

Environmental resource	Valued ecosystem component	Importance of the valued ecosystem component
Air and climate	Air quality	• Effects on air for local residents. • Health implications for all users. • Effects on atmosphere.
	Climate	• Contribution to global warming.
Land	Geomorphology and landscape	• Change in land morphology. • Importance to local community. • Importance for conservation • Effects of waste disposal methods.
Water	Ground water quality	• Sustainability issues. • Conflict use.
Ecology and biodiversity	Terrestrial ecology and biodiversity	• Importance to the well-being of all biological content of the ecosystem. • Importance for ecosystem well-being and proper functioning. • Use to community.
Human Environment	Socio-economic & biodiversity	• Economic use to the community. • Employment opportunities. • Community welfare.
	Public health and safety	• Operation impacts on community safety.
	Noise pollution	• Nuisance to local community and ecosystem.

5.6.3 Impacts aspects

Table 3 was used to populate multiple environmental variables that will be impacted by each mining activity.

Table 3: *Identified Impact Variables emanating from project activities.*

Project component	Impact Variable
Infrastructure Establishment – site selection and preparation.	• Excavation/Topsoil clearing and removal and land levelling. • Transport and equipment use. • Purchase and delivery of materials. • Staff hiring.
Infrastructure Establishment – civil works installations and commissioning.	• Modular setup of infrastructures (office, accommodation, storage and ablution facilities). • Transport and use of vehicles. • Equipment use. . • Water supply. • Waste disposal, clean-up, landscaping and preparations to make the facility ready for use. • Staff hiring
Mining Process. mica extraction	• Excavation, earthworks, backfill and compaction. • Vehicles and heavy machine use. • Blasting. • Energy use. • Staff hiring
Mining Process –packaging, storage and distribution	• Vehicles and heavy machine use. • Energy use. • Staff hiring.
Decommissioning- reclamation	• Excavation, earthworks, backfill and compaction. • Vehicles and heavy machine use • Energy use • Staff hiring

5.6.4 Impacts evaluation

The Leopold matrix's third stage involved evaluating the significance of each influence in order to ascertain how it will affect the receiving environment. As shown in ***Table 4***, each impact was rated according to its nature, extent, duration, magnitude and probability.

Table 4: *Ratings matrix for assessed impacts.*

Assessment of Impact	Rating	Description
Nature/Type	D I C	**Direct** - Caused by the project and occur simultaneously. **Indirect**- Associated with project and may not happen immediately. **Cumulative** - Combined impacts that could be associated with other existing activities or future activities not related to the project.
Extent	I L R N I	**Immediate.** Mining Site. **Local**-Surrounding communities/land use. **Regional**- Erongo Region. **National** - Namibia. **International**.
Duration	ST MT LT	**Short term** - 0-5 years. **Medium term** - 5-15 years. **Long Term** - >15 years.
Magnitude	L M H	**Low** - the natural, cultural and social functions and processes are not affected. **Medium**-the affected environment is altered but natural, cultural and social functions and processes can continue. **High**- the affected environment is altered to the extent that natural, cultural and social functions and processes will temporarily or permanently stop.
Probability	LP P HP D	**Low probability** -possibility of impact occurring is low, below 25%. **Probable**-there is a distinct possibility that it will occur, approximately 50%. **Highly probable** - the impact is most likely to occur, 75%. **Definite** - the impact will occur, more than 100%.
Significance without mitigation measures (WOM)	Impact Factor (IF)	**Impact Factor was measured on a scale of** 1 to 5 with 1 representing low significance and five highest significance.

5.7 Analysis of Alternatives

Alternative mining strategies were investigated in order to reduce negative environmental impacts while achieving project objectives.

5.8 Environmental Impact Mitigation

An Environmental Management Plan (EMP) was produced which described strategies for mitigating, controlling, and monitoring activities that may have significant environmental effects. The EMP was submitted together with the EIA report to the I&Aps for public review.

6 ENVIRONMENTAL IMPACT ASSESMENT'S FINDINGS AND DISCUSSIONS

6.1 Introduction

This section of the report presents and discusses findings of the environmental impact assessment which was carried for the proposed extraction of industrial minerals on the mining claim license No. 74840, 74841 and 74843 in the Karibib Constituency, Erongo Region, Namibia. Findings covers the environmental baseline information and assessment:

- Impact on abiotic environment.
- Impact on biotic environment.
- Impact on social and cultural environment.
- Impact on human environment.

6.2 Environmental Baseline Information

The environmental baseline conditions in the focus area were described in terms of physical, biological and human environmental synopsis. The results are presented in section ***6.2.1*** to ***6.2.4***.

6.2.1 Climate and weather

Namibia is one of the largest and driest countries in Sub-Saharan Africa, characterised by significant climatic variability, including prolonged droughts, irregular rainfall patterns, temperature fluctuations, and widespread water scarcity (Dove, 2021). The dry conditions in the proposed mining area are influenced by the cold Benguela Current, which affects coastal and nearby inland climates, contributing to aridity and occasional coastal fogs that can extend inland (Bender, 1999; Dove, 2021).

6.2.1.1 Rainfall

The rainfall pattern in Namibia is defined by a distinct gradient of more rainfall in the mainland interior receiving rainfall above 200 mm in some parts while the coastal regions receives rainfall below 100 mm per year, including the greater part of the Erongo region (***Figure 4***). This decrease in precipitation is primarily due to the influence of the cold Benguela current upwelling current, which is a source of dry cold air masses with limited precipitation in the form of fog along Namibia's coastal regions.

During summer, the movement of the ITCZ to the south influences rainfall in Namibia. The rainy season typically lasts from November to April the following year with January having the most rainfall (***Figure 5***). However, rainfall can occur in Namibia's southern regions during winter as the Temperate Zone moves northward. Coastal fog, on the other hand, is more predictable than rainfall in the western part of the country, particularly in Erongo region.

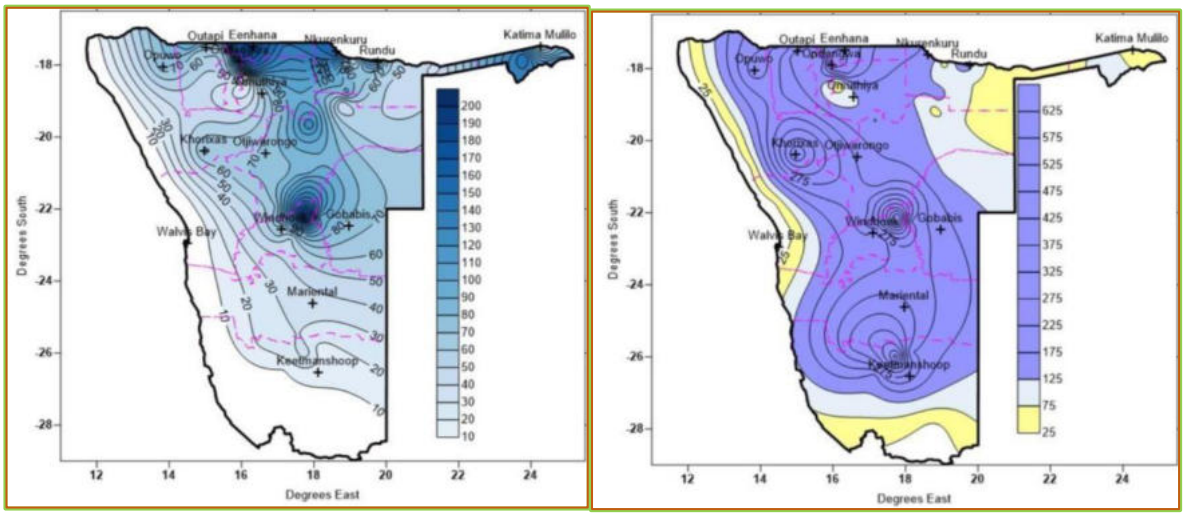

Figure 4: *Spatial distribution of rainfall in Namibia, December 2019 (left) and rainfall as a percentage of normal rainfall (right). Rainfall units are in milliliters. Source: Ministry of Work and Transport (2023).*

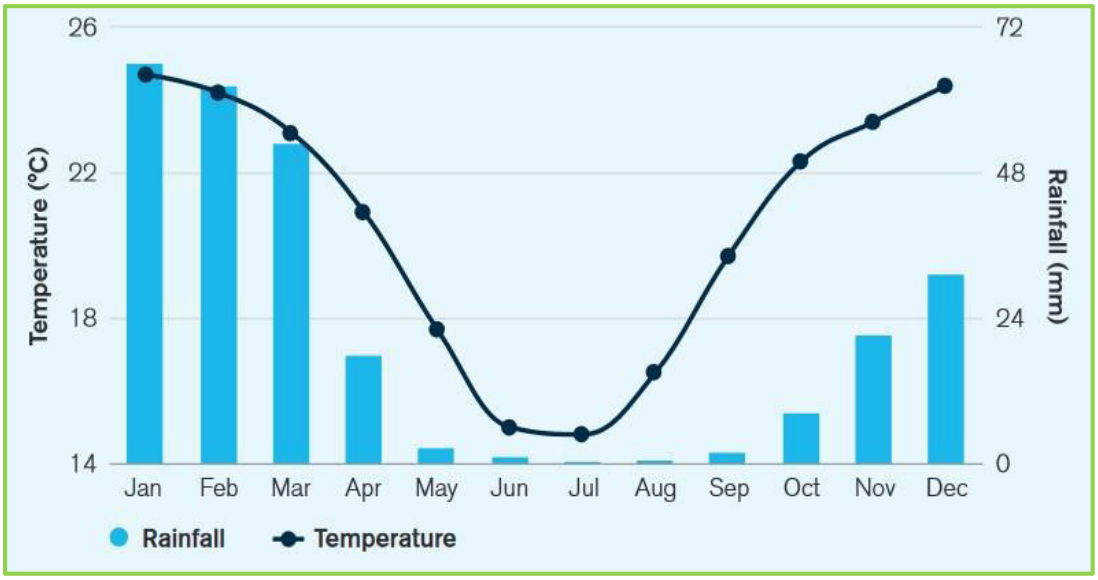

Figure 5: *Namibian average monthly temperature and rainfall between 1991 and 2020, inclusive (Dove, 2021).*

Rainfall Patterns around the Study Area

The proposed mining area around Arandis and Usakos lies within a desert to semi-arid climate zone with very low and highly variable rainfall. Arandis typically receives very little precipitation, with average annual rainfall generally below 50 mm per year and most rainfall occurring during the summer months (January – March) when sporadic showers are possible (Weather Atlas, 2024). In contrast, climatic data for Usakos shows somewhat higher variability, with average monthly rainfall totals that suggest a higher annual rainfall regime, particularly during the peak rainy season, but still within an overall arid context (Weather Atlas, 2024). Together, these data indicate that rainfall in the Arandis–Usakos area is low, erratic, and concentrated in short summer rainfall events, and the broader ecosystem is adapted to extreme arid conditions.

6.2.1.2 Temperature

Temperatures are generally high in Namibia's interior. The coastal region of the country, on the other hand, experiences comparatively milder temperatures throughout the year, due to the Cold Benguela current. Summer and rainy season temperatures are often higher (***Figure 6***). Furthermore, rising mean, maximum, and minimum temperatures have been observed for Namibia over the years (***Figures 6 and 7***).

Temperature Patterns around the Study Area

The Arandis–Usakos area, where the proposed mining site is located, experiences extreme arid temperatures typical of inland desert regions. In Usakos, maximum average temperatures range from 23.6 °C in June to 32.4 °C in October, while minimum temperatures recorded overnight or in the early morning vary between 9.8 °C in July and 20.1 °C in December (Weather Atlas, 2024). In Arandis, average high temperatures range from 20 °C to 23.5 °C, with average low temperatures between 14 °C and 19.3 °C (Weather Atlas, 2024). These temperature patterns reflect mild winters and very hot summers, with notable diurnal variation, which influences land use, vegetation, and operational considerations for mining activities. Despite high daytime temperatures, relative humidity remains moderately stable, fluctuating between 54% and 78%. (Weather Atlas, 2024)

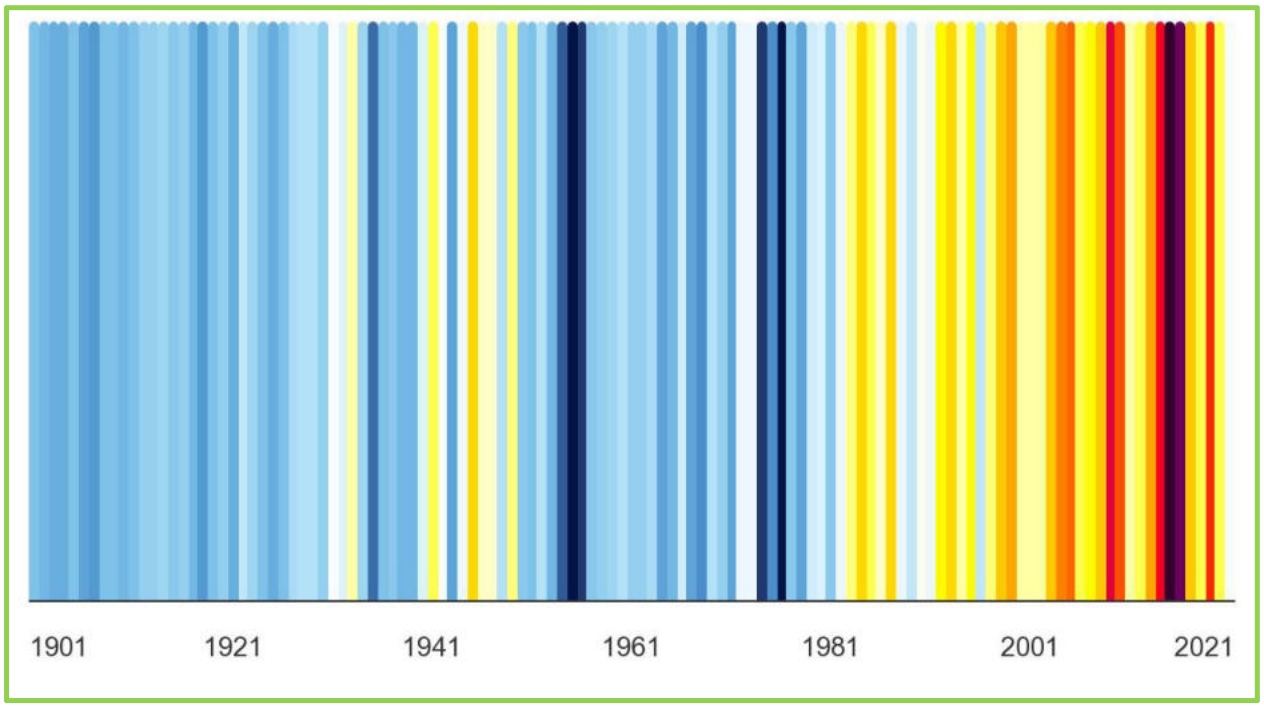

Figure 6:*Long-term annual mean temperature for Namibia between 1901 to 2021, inclusive (CCKP, 2022).*

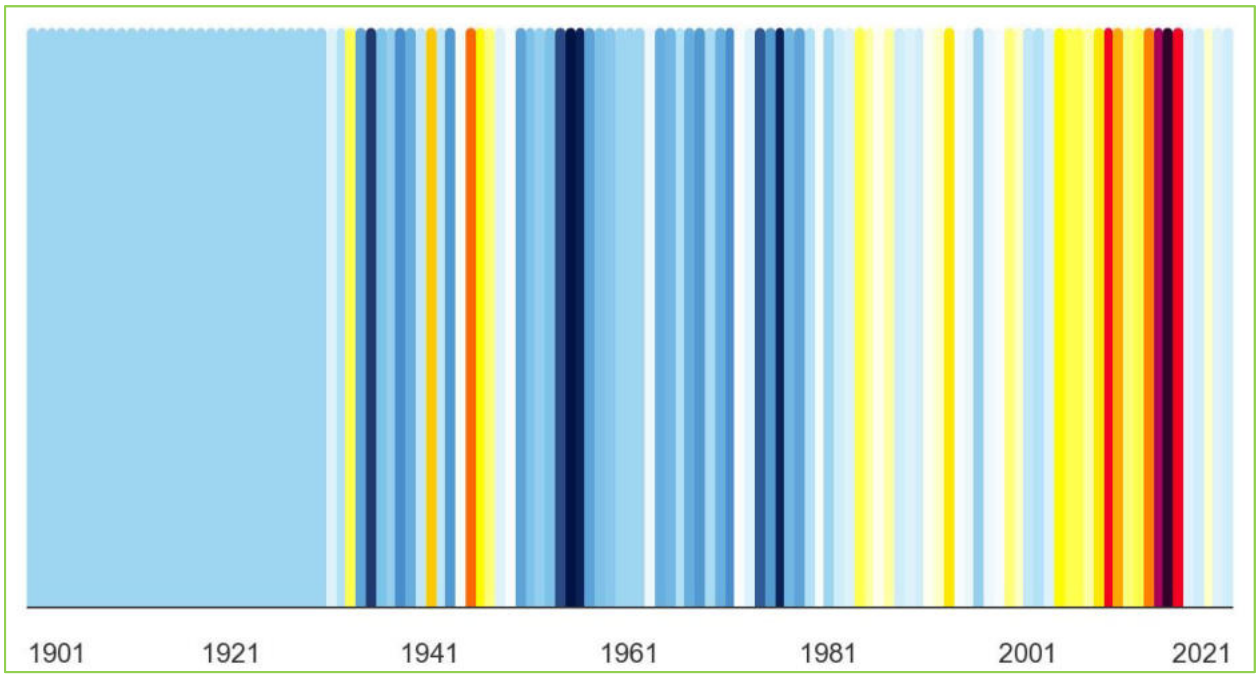

Figure 7*: Long-term annual mean temperature for Erongo region from 1901 to 2021, inclusive (CCKP, 2022).*

6.2.2 Geo-physical environment

The proposed mining site is located within the Karibib Constituency of the Erongo Region, near Arandis and Usakos. The region is part of the central Erongo geological province, characterised by a combination of granite intrusions and Etendeka basaltic volcanic formations (Garrard et al., 2017). These formations give rise to a landscape of gently undulating plains interspersed with rocky outcrops, inselbergs, and minor hills, which influence drainage patterns and soil development.

The mining claim area is made up of rocks dating back to the Cambrian Age, predominantly composed of highly deformed and metamorphosed Damara Sequence sediments, Khan formation and the Abbabis Complex. These geological features hold valuable insights into the potential mineral resources present in the area.

6.2.2.1 Water resources and sources

The supply of surface water is closely related to rainfall pattern in both time and space. As a result, surface water resources in Namibia are sparse and unpredictable due to unpredictable rainfall patterns. Rainfall around the study area is minimal and also unpredictable with rivers in the region only flowing after heavy rainfall in the highlands of the central Namibia. Groundwater resources, on the other hand, are unevenly distributed across the country, being closely associated with underground rock types that vary with geological conditions; as a result, there are only a few favourable locations where large volumes of groundwater can be extracted sustainably (Christellis et al., 2001). Furthermore, about 48% of the country is covered by unconsolidated deposits that could be porous aquifers, while the rest is made up of hard, fractured rocks (Christellis et al., 2001).

Water availability in the Karibib-Arandis-Usakos area is limited due to the arid to semi-arid climate of the Erongo Region, with low and highly variable rainfall. Surface water is scarce, and water supply in the area is supported through a combination of groundwater resources and reticulated water from NamWater, ensuring reliable access for domestic, agricultural, and industrial uses. For the proposed mining site, water will be supplied by an existing borehole located on the farm, which will provide sufficient water for operational requirements, including dust suppression, domestic use, and ablution facilities. The use of the existing borehole

minimises the need for additional water abstraction infrastructure, thereby reducing potential environmental impacts. Monitoring and management of water use will be conducted to ensure sustainable abstraction, avoid over-extraction, and prevent contamination of the groundwater resource. This will include regular water quality testing, adherence to national groundwater use regulations, and implementation of water conservation measures throughout mining operations.

6.2.3 Biological environment

The biological diversity and richness of the Erongo region vary with distance from the shore, indicating that climate has a significant impact on the community structures of both plants and animals.

6.2.3.1 Flora

The proposed mining site is located within the arid to semi-arid inland zone of the Erongo Region, around Arandis and Usakos. The area south of Usakos falls within the Nama Karoo and the Namib Desert. Vegetation is limited, with grass cover being dominant and trees mainly represented by Acacia species. The plant communities are well adapted to extreme aridity, poor soils, and high temperature fluctuations.

The vegetation exhibits low structural complexity and limited species diversity, typical of inland desert environments. Understanding the composition and distribution of local flora is critical for assessing potential habitat disturbance, planning infrastructure placement, and guiding site rehabilitation measures following mining activities.

6.2.3.2 Fauna

Birds

The avifauna of the broader area is relatively low in diversity, with at least 27 bird species recorded in the general area extending towards Trekkopje (eBird, 2024). These include representatives of canaries, sparrows, weavers, sunbirds, chats, flycatchers, doves, swifts, falcons, flamingos, and the common ostrich. The most frequently recorded species in the area include Lark-like Bunting (Emberiza impetuani), Violet Woodhoopoe (Phoeniculus damarensis), Damara Red-billed Hornbill (Tockus damarensis), Pale-winged Starling

(Onychognathus nabouroup), and White-throated Canary (Crithagra albogularis) (eBird, 2024). Most bird species occurring within and around the focus project area are classified as Least Concern from a conservation perspective (eBird, 2024).

Reptiles

Namibia is one of the important habitat for reptiles in Africa. The country has about 261 species, which account for about 30% of the African species diversity (Griffin 1998). Furthermore, there are about 55 species that are endemic to Namibia which makes up about 21% of the estimated 261 species found in Namibia. In general, there are about 100 species in Erongo region of which most of them are around the Namib-Naukluft and Sekeleton Coast national parks and at least 20 to 30 species are endemic to the central eastern part of the region (Cunningham and van Zyl, 2022). there are at least 51 reptile species in the Karibib Constituency (iNaturalist, 2024), reflecting a high probability of diverse endemism of reptiles around the mining site.

Amphibians

The diversity for amphibians in Namibia require conservation efforts due to the low number of species reported to be endemic to Namibia. Out of the estimated 200 species found in southern Africa, Namibia is expected to have a share of about 57 to 65 species (29 - 33 %) of which only about 6 are thought to be endemic to Namibia (Cunningham and van Zyl, 2022). Due to the habitat and adaptation strategies, the given figures are not surprising considering that Namibia is an arid country. Most amphibians are adapted to wet habitats and therefore a great number of amphibians in Namibia occurs in the north-eastern part of Namibia. There are no wetland within the specific proposed mining site.

Invertebrates

The invertebrates that can be affected by the proposed project includes spiders and scorpions. The two species group are mostly nocturnal and largely active at night in search of food. Generally, spiders and scorpions can be considered as key state of environmental indicator species due to their carbon turnover as well as their ability to respond rapidly to changes in the environment.

There are at least 14 species of scorpions that are reported in Karibib Constituency (iNaturalist, 2024) which are: *Opistophthalmus coetzeei*, *Parabuthus brevimanus*, *Uroplectes gracilior*, *Opistophthalmus carinatus*, *Parabuthus villosus*, *Hadogenes hahni*, *Uroplectes planimanus*, *Uroplectes tumidimanus*, *Lisposoma elegans*, *Uroplectes otjimbinguensis*, *Parabuthus granulatus*, *Opistophthalmus wahlbergii*, *Hottentotta conspersus* and *Parabuthus kraepelini*.

In terms of spiders, five species are recorded in the Karibib Constituency, including the *Eusparassus educates*, *Argiope australis*, *Stegodyphus dumicola*, *Leucauge auronotum* and *Asemesthes lineatus* (iNaturalist, 2024). These species are expected to occur around the general surrounding area and possibly around the focus mining area.

Mammals

Mammals are one of the most important wildlife in terms of socio-economic contributions due to their intrinsic value that significantly contribute to tourism in the wider general area. However, there is not many large mammals i.e. elephants, lions, leopards, cheetahs, antelopes etc. around the focus (project) area due to the arid climate of the Namib Desert resulting in poor vegetation cover. This include species like gemsbok springbok (*Antidorcas marsupialis*), the vulnerable Hartmann's mountain zebra (*Equus zebra*), dassie rat (*Petromus typicus*) bushveld gerbil (*Gerbilliscus leucogaster*), meerkat (*Suricata suricatta*), the near threatened brown hyaena (*Parahyaena brunnea*), southern small-spotted genet (*Genetta feline*) chacma baboon (*Papio ursinus*), rock hyrax (*Procavia capensis*) and the bushveld sengi (*Elephantulus intufi*) (MEFT, 2024; iNaturalist, 2024).

6.2.4 Human environment

The proposed mining of industrial minerals may have both positive and negative effects on the local and regional human environment. In this context, the human environment includes the physical, social, and economic conditions that influence the wellbeing and quality of life of people living in the area. Key factors include land use, socio-economic activities, and resource availability.

The mining claims are situated on a private farm within the Karibib Constituency of the Erongo Region, approximately 1 km from the main road. Although the land is classified as a farm,

there is no active farming on the site itself. Surrounding land uses in the region include small-scale livestock farming, primarily involving sheep and goats, with scattered homesteads and associated grazing activities. While mining has the potential to provide job opportunities and stimulate local economic activity, it may also contribute to environmental pressures that indirectly affect the human environment. These could include dust generation, noise, land disturbance, and potential impacts on groundwater resources, which may influence health, livelihoods, and overall quality of life if not properly managed.

Careful planning, including mitigation measures and sustainable resource management, is therefore necessary to balance the socio-economic benefits of mining with the protection of local environmental and human health conditions.

6.3 Public Participation in the EIA process

The public participation process (PPP) provided a platform to IAPs and stakeholders in an independent and neutral way that encouraged IAPs and stakeholders to participate and raise comments, issues of concern and suggestions for inputs into the EIA and EMP reports. During the EIA phase, public participation allowed IAPs and stakeholders to review and provide comments on the findings of the environmental assessment and the proposed management measures. IAPs and stakeholders will be notified about the outcome of the authority's decision and by when the decision may be appealed.

6.3.1 Public Notices and Invitations

Following the EMA Act No 7 of 2007 (and its regulations of 2012), public notices were placed in two local newspapers calling for registration of IAPs and stakeholders (*Appendix B*). Furthermore, notices were put at the notice board of the Erongo Regional Council Office, the Ministry of Mines and Energy office and the Swakopmund Constituency Office in Swakopmund as well as Arandis municipality.

6.3.2 *Public meeting and participation*

On 26 September 2026, a public consultation meeting was held at the Arandis Town Hall following prior public notice of the meeting (Appendix C for the attendance register). The meeting was attended primarily by young people from the local community, reflecting their interest in potential employment opportunities. The session ran from 18:00 to 18:40 and was

facilitated to explain the proposed mica mining project and to solicit inputs, questions, and concerns. A background information document (BID) detailing the proposed project was distributed to all registered Interested and Affected Parties (I&APs) and relevant line ministries prior to the meeting. The BID was also presented during the consultation to ensure participants had a clear understanding of the project's scope and potential impacts.

During the meeting, participants expressed curiosity about mica, its uses, and the expected benefits of the project. While no objections to the project were raised, several points and questions were highlighted by the young participants, including employment priorities and project timelines.

6.3.2.1 Raised Questions and Comments by the Interested and Affected Parties (I&Aps).

1. What is mica, and what is it used for?
2. When is the project likely to start?
3. Will local youth be prioritised for employment opportunities?
4. What environmental impacts should we expect?
5. How will the site be rehabilitated after mining?
6. Will workers be provided with personal protective equipment (PPE), and will there be proper safety supervision on-site?

6.3.2.2 Responses to the raised Questions and Comments by the Interested and Affected Parties (I&Aps).

1. Mica and its uses: Mica is an industrial mineral widely used in electronics, cosmetics, paint, and construction materials, and the project will focus on its extraction for commercial purposes.
2. Project timeline: The proponent indicated that mining operations are expected to commence within the next 6–12 months, pending approval and preparation of the site.
3. Employment: Local youth from Arandis and surrounding areas will be considered for employment, with recruitment conducted in line with the Labour Act, ensuring fair and equitable selection of qualified candidates.

4. Environmental impacts: Potential environmental impacts, including dust, noise, land disturbance, and water use, have been identified and will be managed through the Environmental Management Plan (EMP), which includes measures for dust suppression, safe waste management, and water monitoring.
5. Site rehabilitation: Trenches and disturbed areas will be progressively rehabilitated as mining proceeds, and rehabilitation plans are included in the EMP to restore the site after the completion of mining activities.
6. Safety and training: All workers will be provided with personal protective equipment (PPE) and trained in its proper use. A qualified safety officer will oversee compliance with health and safety protocols on-site

6.4 Impact Identification Assessment Results

The purpose of the assessment was to determine the potential environmental impacts and concerns related to the proposed mining of industrial minerals (mica) within Dorob National Park, under mining claim licenses No.: 74840, 74841 and 74843, located in the Karibib Constituency, Erongo Region. Following a thorough evaluation, several key factors or issues were identified as being of the highest significance. (***Table 5-7***):

- **Habitat Destruction or Modification:**

The assessment identified the potential for habitat disturbance or alteration arising from infrastructure development and mineral extraction activities. This aspect focuses on the need to conserve and protect existing habitats and ecological systems within the area. Although overall biodiversity is generally low, the likelihood of habitat modification or loss within the immediate project footprint is assessed as medium, primarily due to the quarrying methods associated with mica extraction.

- **Land Modification (Geomorphology):**

This aspect assesses changes to the physical landscape and geomorphological processes associated with mining activities and related infrastructure. Potential impacts on landforms, surface drainage, and erosion risk are considered. The likelihood of land modification is rated as medium to high, depending on the site-specific geological distribution of mica. Disturbance will be localised and confined to areas where mica is present, and therefore only a portion of the approximately 47-hectare project area is expected to be affected.

- **Loss of Topsoil:**

The assessment recognised the potential loss of topsoil during the mining phase. This factor emphasised the importance of implementing measures to minimise soil erosion. The probability of loss of topsoil was found to be high. However this only within the specific project area which is 47 hectares. Although the probability of topsoil loss is high, the overall impact is

expected to be low, as the affected area supports low biodiversity and is characterised by sparse, drought-adapted vegetation.

- **Land/Soil Pollution:**

This aspect examines the risk of soil and land contamination arising from inappropriate handling and disposal of wastes generated during mining activities. It emphasises the need to safeguard soil integrity and prevent degradation of land quality. The likelihood of land or soil contamination is considered low to moderate and is largely dependent on the effectiveness of waste management practices implemented at the site.

- **Loss of Reptiles and Invertebrates Diversity:**

Biodiversity within the project area is generally low, reflecting the arid conditions of the central Namib region. The area cuts across the Nama Karoo and the Namib Desert. Reptile and invertebrate species, including scorpions, are present and well adapted to arid conditions, but their abundance is expected to be low due to the limited size of the project area. Consequently, the probability of significant loss of reptile and invertebrate diversity is assessed as low.

- **Groundwater Pollution (Leaching):**

The assessment determined that the probability of groundwater contamination is low, as the use of chemicals and other potential pollutants on site is minimal. Any potential contamination would likely arise from wastewater from ablution facilities; however, this risk is expected to remain low given the small scale of the project and the limited size of the land area.

- ***Dust and Gaseous Emissions:***

The assessment identified the potential generation of dust and gaseous emissions during infrastructure development and mining operations, and their possible impacts on air quality and the local climate. It highlighted the importance of controlling and minimising these emissions to prevent air pollution and associated health risks. The likelihood of dust and gaseous emissions is considered medium to high for most project activities; however, these

impacts are largely confined to the immediate project area and primarily affect personnel working on-site.

- ***Noise Pollution:***

This aspect considers the potential increase in noise levels associated with mining operations, primarily from the use of heavy machinery. As there are no nearby communities, noise impacts are confined to the project area. The likelihood of noise disturbance is expected to be medium to high for personnel working on-site, while impacts on the surrounding environment are anticipated to be low due to the limited abundance and diversity of fauna within the project area.

- ***Human Health and Accident Risks:***

This factor focused on the potential risks to human health and safety associated with the infrastructure establishment and mining operation. It considered aspects such exposure to dust and air pollutants, noise as well as accidents and injuries. The probability of Human health and accidents was found to be low to medium.

- **Tourism:**

The proposed project is located on a private farm with no public access, and therefore, it is not part of any established tourist routes. The assessment considered the potential effects of mining activities on tourism and found that impacts are expected to be low.

- **Transportation Route**

The project is located approximately 1 km from the B2 road, and transportation activities associated with the mining operation are expected to be minimal. Given the low scale of traffic and the small project footprint, the potential environmental impact from transportation is considered low.

Table 5: *Impact identification and evaluation from infrastructure establishment related activities.*

Project Stage and Activities	**Impact and Receiving Environment (VECs)**		**Duration** Short Term, Medium Term, Long Term.	**Magnitude** Low, Medium, High.	**Extent** Immediate (I) Localised (L) Regional (R) National (N)	**Type** Direct Indirect Cumulative.	**Probability** Low, Medium, High.
Infrastructure Establishment (site preparation) • Excavation/Topsoil clearing and removal and land levelling- • Equipment use. • Purchase and delivery of materials. • Waste generation	**Air**- dust creation		Short Term	Low	I	Direct	High
	Land- removal of top soil. Waste creation.		Long Term	Medium	I	Direct	High
	Ecology- Habitat destruction.		Long Term	Medium	I, L	Direct	Medium
	Biodiversity- Possible impact on diversity of small fauna and flora.		Long Term	Medium	I, L	Direct	Low
	Human environment-	Noise and air pollution, health and Safety of employees.	Short Term	Low	I, L	Direct	Medium
		Employment creation	Short Term	Low	I, L, R,	Direct	Medium-High
		Conflict overlapping land use i.e. tourism.	Medium Term	Low	I, L, R	Indirect	low
Infrastructure Establishment (civil works and facilities installations) • Modular setup of infrastructures (office, accommodation, storage and ablution facilities). • Use of vehicles. • Equipment use. • Water supply.	**Air**- dust creation		Short Term	Low	I	Direct	Medium
	Land- removal of top soil. Waste creation		Long Term	Low	I	Direct	Medium
	Ecology- Habitat destruction.		Long Term	Low	I, L	Direct	Low
	Biodiversity- Possible impact on diversity of small fauna and flora.		Long Term	Low	I, L	Direct	Low
	Human environment-,	Noise and air pollution, health and Safety of employees.	Short Term	Low	I, L	Direct	Low
		Employment creation.	Short Term	Low - Medium	I, L,R	Direct	Medium-High

• Waste generation		Conflict overlapping land use i.e. tourism.	Long Term	Low	I, L, R, N	Direct	low
<u>Infrastructure Establishment (commissioning- preparations to make the facility ready for use)</u> • Clean-up, • landscaping • Equipment use • Waste disposal	**Air**- dust creation		Short Term	Low	I	Direct	Low
	Land- Waste creation and disposal (pollution)		Short Term	Medium	I, L	Direct	low
	Ecology- Habitat destruction.		Long Term	Medium	I, L	Direct	Low
	Biodiversity- Possible impact on diversity of small fauna and flora.		Long Term	Medium	I, L	Direct	Low
	Human environment	Noise and air pollution, health and Safety of employees.	Short Term	Low	I, L	Direct	Low
		Employment creation.	Short Term	Low - Medium	L,R	Direct	Medium-High
		Conflict overlapping land use i.e. tourism.	Medium Term	Low	I, L, R	Indirect	Low
Transportation.	**Air**- dust creation		Short Term	Low	I	Direct	Medium
	Land- loss of top soil etc.		Long Term	Low	I	Direct	Medium
	Ecology- Habitat destruction.		Long Term	Low	I	Direct	Low
	Biodiversity- Possible impact on diversity of small fauna and flora.		Long Term	Low	I, L	Direct	Low
	Human environment	Noise and air pollution, health and Safety of employees.	Short Term	Low	I, L	Direct	Low
		Employment creation.	Short Term	Medium	L, R	Direct	Medium-High
		Conflict overlapping land use i.e. tourism.	Long Term	Low	I, L	Direct	Low

Table 6: *Impact identification and evaluation from mining operation related activities.*

Project Stage and Activities	**Impact and Receiving Environment (VECs)**		**Duration** Short Term, Medium Term, Long Term	**Magnitude** Low, Medium, High	**Extent** Immediate (I) Localised (L) Regional (R) National (N)	**Type** Direct Indirect Cumulative	**Probability** Low, Medium, High.
Mining Process. (mica extraction) • Excavation, earthworks, Top soil removal, Mica extraction, backfill and compaction. • Vehicles and heavy machine use. • Blasting. • Energy use.	**Air and climate**- Dust creation, air pollutant emission, vehicles gaseous emission etc.		Medium Term	Medium	I, L	Cumulative	High
	Land- Waste creation and disposal (pollution).		Long Term	Medium	I	Cumulative	Medium
	Ecology- Habitat destruction		Long Term	High	I, L, R	Cumulative	Medium
	Biodiversity- Possible impact on diversity of small fauna and flora.		Long Term	Medium	I, L, R	Cumulative	Medium
	Human environment	Noise and air pollution.	Medium Term	Medium	I, L	Cumulative	Medium
		Employment creation	High Term	Medium-High	I, L, R	Direct	Medium-High
		Conflict overlapping land use i.e. tourism.	Medium Term	Low	I, L, R	Indirect	Low
	Underground water – Possible contamination.		Medium Term	Low	I, L	Cumulative	Low
Mining Process (packaging, storage and distribution) • Vehicles and heavy machine use. • Energy use.	**Air and climate**- Dust creation, air pollutant emission, vehicles gaseous emission etc.		Long Term	Low	I, L	Cumulative	Medium
	Land- Land use, increased traffic, waste creation and disposal (pollution).		Medium Term	Low	I, L, R	Direct	Low
	Ecology- Habitat destruction.		Medium Term	Low	I, L, R	Cumulative	Low

• Transportation of mica.	**Biodiversity-** Possible impact on diversity of small fauna and flora.		Long Term	Low	I, L, R	Cumulative	Low
	Human environment	Noise and air pollution, fuel odor, accident and health risk.	Medium Term	Low	I, L	Direct	Medium
		Employment creation.	High Term	Medium-High	I, L,R	Direct	Medium-High
		Conflict overlapping land use i.e. tourism.	Medium Term	Low	I,L,R	Direct	Low
<u>Decommissioning-(reclamation/restoration)</u> • Excavation, earthworks, backfill and compaction. • Vehicles and heavy machine use • Energy use • Dismantling of infrastructure • Transportation (i.e container offices and accommodation) or treatment of waste.	**Air and Climate**- Dust creation, air pollutant emission, vehicles gaseous emission etc.		Medium Term	Medium	I,L	Direct	Medium
	Land- Waste disposal (land pollution) etc.		Long Term	Medium	I,L	Direct	Low
	Ecology- Habitat destruction.		Short Term	Low	I,L	Direct	Low
	Biodiversity- Possible impact on diversity of small fauna and flora.		Short Term	Low	I,L	Direct	Low
	Human environment	Noise pollution, air pollution, accident and health risk.	Medium Term	Medium	I,L	Direct	Low
		Employment creation	Short Term	Medium	I,L,R	Direct	Medium-High
		Conflict overlapping land use i.e. tourism.	Medium Term	Low	I,L,R	Direct	Low
Transportation to and from the mine site.	**Air**- dust creation		Short Term	Low	I	Direct	Low
	Land- Waste creation and disposal (pollution)		Short Term	Low	I, L	Direct	High
	Ecology- Habitat destruction.		Long Term	Low	I, L	Direct	Low
	Biodiversity- Possible impact on diversity of small fauna and flora.		Long Term	Low	I, L	Direct	Low
	Human environment	Noise pollution, air pollution, accident and health risk.	Medium Term	Medium	I,L	Direct	Low
		Employment creation	Short Term	Medium	I,L,R	Direct	low

	Conflict overlapping land use i.e. tourism.	Medium Term	Low	I,L,R	Direct	Low	

Table 7: *Significance of the potential Impacts.*

Impacts Factors	1. Site preparation - Land levelling.	2. Civil works and facilities installations	3. Landscaping	4. Excavation. earthworks	5. Blasting, Mica extraction	6. Vehicles and heavy machine use	7. Storage of mica on site	8. Transportation	9. Backfilling.	10. Cleaning of facility.	11. Routine check and necessary repairs.	12. Energy consumption.	13. Water resources use	14. Waste generation and disposal	15. Human resource	16. Decommissioning	**Sum of IF values**	**Average of IF values**
Air and Climate																		
1. Dust and gaseous emission	2/5	2/5	2/5	3/5	4/5	1/5	0/5	1/5	3/5	0/5	0/5	0/5	0/5	1/5	0/5	2/5	21	1.31
2. Noise pollution	2/5	2/5	1/5	2/5	4/5	1/5	0/5	1/5	1/5	0/5	1/5	0/5	0/5	0/5	0/5	2/5	17	1.06
Land																		
3. Land use conflict	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	1/5	0/5	0/5	1	0.06
4. Loss of top soil	3/5	0/5	1/5	4/5	4/5	0/5	0/5	0/5	1/5	0/5	0/5	0/5	0/5	0/5	0/5	1/5	14	0.88

5. Land modification (geomorphology)	3/5	0/5	1/5	4/5	4/5	1/5	0/5	0/5	1/5	0/5	0/5	0/5	0/5	0/5	0/5	1/5	15	0.94
6. Land/soil pollution	1/5	1/5	0/5	0/5	1/5	1/5	0/5	1/5	1/5	0/5	0/5	0/5	0/5	3/5	0/5	0/5	9	0.53
Ecology and Biodiversity																		
7. Habitat destruction or modification	4/5	1/5	1/5	4/5	4/5	1/5	0/5	1/5	1/5	0/5	0/5	0/5	0/5	1/5	0/5	0/5	18	1.10
8. Loss of vegetation (trees, shrubs grass, herbs etc.).	4/5	2/5	2/5	5/5	4/5	1/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	18	1.10
9. Loss of reptiles, insects diversity	2/5	2/5	2/5	2/5	2/5	0/5	0/5	1/5	1/5	0/5	0/5	0/5	0/5	1/5	0/5	0/5	13	0.81
10. Loss of birds' diversity.	1/5	1/5	1/5	1/5	2/5	1/5	0/5	1/5	1/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	9	0.56
11. Loss of large mammals	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0	0.00
Water																		
12. Increased surface water use.	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0	0.00
13. Increased groundwater use.	1/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	3/5	0/5	0/5	2/5	0/5	0/5	0/5	6	0.38
14. Groundwater pollution (leaching).	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	1/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	1	0.06
Human environment																		
15. Human health and accident risks.	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5	0/5	1/5	0/5	0/5	1/5	1/5	0/5	12	0.75
16. Community welfare	0/5	0/5	0/5	0/5	3/5	0/5	0/5	1/5	0/5	0/5	0/5	0/5	0/5	0/5	1/5	1/5	6	0.38
17. Increased traffic congestion.	0/5	0/5	0/5	0/5	0/5	0/5	0/5	1/5	0/5	0/5	0/5	1/5	0/5	0/5	0/5	0/5	2	0.13
18. Increased traffic accidents	0/5	0/5	0/5	0/5	0/5	0/5	0/5	1/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	0/5	1	0.06
Sum IF values	24	12	12	26	33	8	1	10	12	3	2	1	2	8	2	7	**IF =0.56**	
Average of IF values	1.33	0.67	0.67	1.44	1.83	0.44	0.06	0.55	0.67	0.17	0.11	0.06	0.11	0.44	0.11	0.39		

7 ENVIRONMENTAL MANAGEMENT PLAN

7.1 Introduction

This Environmental Management Plan (EMP) has been prepared for the proposed mining of industrial minerals (mica) under mining claim licenses 74840, 74841, and 74843, located in the Usakos Constituency, Erongo Region, approximately 33 km north-east of Arandis and 48 km south-west of Usakos. The purpose of this plan is to outline the measures and actions required to mitigate potential environmental impacts associated with the project. Overall, the project is expected to have a low environmental impact, with the main concerns being land disturbance and topsoil loss. This is largely due to sparse vegetation, low wildlife abundance and diversity typical of the arid Namib Desert, the considerable distance from nearby communities, and the relatively small size of the project area. A comprehensive strategy has been adopted to manage all identified impacts, ensuring that environmental protection and sustainability remain central throughout the mining lifecycle.

7.2 Environmental Management Plan

The full detailed Environmental Management Plan (EMP) is presented in ***Table 8***. The EMP includes specific mitigation measures for potential impacts such as dust emissions, noise pollution, waste management, and the protection of habitats and species. Additionally, it outlines the monitoring protocols that need to be put in place to assess the effectiveness of the mitigation measures and ensure ongoing compliance with environmental standards. The project proponents should be committed to engage with relevant stakeholders, including local communities and regulatory authorities, to ensure that their concerns and interests are considered throughout the mining lifecycle. Regular communication, consultation, and collaboration need to be prioritised to address environmental issues and foster a positive relationship with the local community.

Given the evolving nature of environmental conditions, this EMP is intended to be a living document that should be periodically reviewed and updated to address new circumstances and emerging environmental issues. To ensure effective implementation and continuous compliance with environmental regulations, the project proponent must establish an environmental management team through the appointed contractor(s) to oversee and monitor the EMP’s execution.

Table 8: *Environmental Management Plan.*

Impacts	Mitigation	Monitoring action and methods	Performance indicator	Responsible personnel
Dust and gaseous emission	• Cover or wet down stockpiles of mining materials to prevent dust dispersion. • Use windbreaks, such as fences or barriers, to minimise the spread of dust at work area. • Schedule mining activities to minimise dusty operations during high-wind periods. • Limit engine idling time and enforce anti-idling policies for mining machineries/vehicles. Use low-emission mining equipment and machinery. • Ensure all vehicles and machinery are properly maintained to minimise emissions. • Providing training to employees on dust and gas control measures, as well as raising awareness about the importance of emission reduction, can improve compliance and effectiveness of mitigation measures.	• Measure and record dust levels at regular intervals to assess the effectiveness of dust control measures. • Conduct visual inspections to detect fugitive dust emissions from mining activities. • Utilize gas detectors and analyzers to monitor the presence and concentration of gaseous emissions, such as volatile organic compounds (VOCs), nitrogen oxides (NOx), and sulfur dioxide (SO2).	• Measured levels of dust particles and gaseous concentrations • Community/stakeholders satisfaction through continuous surveys. • Timely Reporting and Response	Contractor.

	• Regularly monitoring air quality and emissions from the mining site can help identify areas for improvement and ensure compliance with regulations. Reporting findings transparently to relevant authorities and the public fosters accountability and trust.			
Noise pollution	• Use sound suppression and noise attenuation solutions • Provide appropriate hearing protection, such as earplugs or earmuffs, to mine workers exposed to high noise levels.	• Install noise monitoring equipment in areas sensitive to noise pollution, such as accommodation and office zones. • Measure and record noise levels generated by mining operation activities at regular intervals.	Noise level	Contractor.
Land use conflict	• Obtain consent from the authority (i.e. the National Heritage Council)	N/A	N/A	Proponent
Loss of top soil	• Top soil should be carefully removed and kept at a designated area for rehabilitation after completion of the mining cycle. • Rehabilitate the mining site.	• Monitor type of soil before mining operation and after.	Type of top soil condition before and after.	Contractor.
Land modification (geomorphology)	• Develop a land restoration plan to guide the post-mining rehabilitation of modified areas. • Ensure that disturbed areas are properly graded, stabilised, and protected against erosion to facilitate successful land recovery.	• Carry out pre-survey survey to establish baseline conditions during and after mining operation.	Habitat condition before and after.	Contractor.
Land/soil pollution	• Develop a comprehensive waste management plan that minimise waste generation. • Dispose of waste in safe area.	• Conduct regular inspections and audits to ensure proper implementation of pollution prevention measures.	• Frequency of soil sampling and analysis conducted during and after mining operation to monitor soil quality and detect	Contractor and proponent

	• Identify and properly handle hazardous materials.	• Maintain accurate records of mining activities, waste disposal, and environmental monitoring.	contamination incidents.	
Habitat destruction or modification	• Conduct a baseline assessment of the existing habitat and biodiversity in and around the mining site before initiating any work as conducted in EIA process. • Document the presence of sensitive habitats, endangered species, or other ecologically significant elements.	• Document any instances of habitat destruction or modification, including the extent and nature of the impact. • Evaluate the effectiveness of mitigation measures and identify any ongoing habitat modification or degradation during operations.	• Percentage of habitat area affected by mining activities compared to the total area of the impacted habitat.	Contractor and proponent.
Loss of vegetation (trees, shrubs grass, herbs etc).	• Avoid riverbed area due to presence of trees.	Make sure no mining takes place in the riverbed.	No mining in the riverbed	Contractor and proponent.
Loss of reptiles, insects etc.	• Fence off the working area to avoid interaction with these animals.	• Conduct comprehensive surveys to identify and document the presence of reptiles, insects, and amphibians in and around the mining site before initiating any work. • Continuous monitoring of presence of these animals.	• Incident report of for human animal interaction during mining operation	Contractor and proponent.
Loss of birds' diversity.	• Fence off the mining work area to avoid interaction with these animals.	• Conduct comprehensive surveys to identify and document the presence of birds in and around the mining site before initiating any work. • Continuous monitoring of presence of birds.	• Incident report of human animal interaction during mining operation.	Contractor and proponent.
Loss of large mammals.	• Impact considered very minimal due to low numbers of these animals around the project site. However, fencing off working areas, road sign	• Conduct comprehensive surveys to identify and document the presence of large mammals in	• Incident report of human animal interaction during mining operation.	Contractor and proponent.

	in the vicinity of the facility should be prioritized.	and around the mining site before initiating any work. • Continuous monitoring of presence of birds.		
Increased surface water use and pollution.	• N/A- No surface water will be used.	N/A	N/A	N/A
Increased groundwater use.	• Implement water-efficient practices, such to minimize water consumption. • Educate staff about the importance of water conservation and provide guidelines for responsible water use	• Monitor water consumption level.	• Consumption rate	Contractor and proponent.
Groundwater pollution (leaching).	• Ensure proper installation, maintenance, and monitoring of underground pit latrine. • Dispose waste at designated safe site. • Train employees on proper handling and storage of hazardous materials and establish protocols for immediate spill response and cleanup.	• Monitor groundwater quality from local boreholes.	• Water quality.	Contractor and proponent.
Human health and accident risks.	• Provide comprehensive safety training to all workers involved in the mining operations, emphasising potential hazards, safe work practices, and emergency procedures. • Promote awareness of potential health and accident risks among workers through safety campaigns and clear signage. • Have fire-fighting equipment in place.	• Conduct regular safety inspections and audits to identify potential hazards, assess the effectiveness of safety measures, and address any safety concerns promptly. • Document and track corrective actions to ensure compliance with safety standards. • Establish a system for reporting and documenting accidents, near misses, or incidents that may have caused or had the potential to	Health status of residents.	Contractor and proponent

	• Employ an occupational health and safety officer. • Conduct regular drills and training exercises to ensure workers are prepared to respond effectively to emergencies.	cause harm to workers or the public. • Conduct regular monitoring of air quality, to assess potential impacts on human health. • Monitor public health indicators, such as reported illnesses or complaints, among mine workers.		
Community welfare	• Maintain a clean and organised mining site to minimise visual blight and promote a positive appearance. • Provide assistance, when feasible, to address any temporary disruptions or inconveniences caused by the mining operation activities. • Support local community initiatives or projects that contribute to the welfare and well-being of the community.	• Conduct community feedback and Surveys. • Conduct continuous social impact assessment. • Health and Safety Monitoring	• Access to essential services. • Employment and other opportunities created. • Overall satisfaction with the project's outcomes.	Contractor and Proponent.
Increased traffic congestion.	• Ensure that all workers and mining vehicles follow strict safety protocols to prevent accidents and collisions with other vehicles.	• Conduct periodic traffic impact assessments to evaluate the effectiveness of the mitigation measures in managing traffic congestion and reducing the risk of accidents. • Use the assessment results to make any necessary adjustments to the traffic management plan and improve traffic flow	Low traffic congestion	Contractor and Proponent
Increased traffic accidents	• Implement appropriate safety measures, such as speed limits, road barriers, and warning signs, to	• Conduct periodic traffic impact assessments to evaluate the effectiveness of the mitigation	Low traffic accidents.	Contractor and Proponent

	minimize the risk of accidents around mining site. • Ensure that all workers and mining vehicles follow strict safety protocols to prevent accidents and collisions with other vehicles	measures in managing traffic congestion and reducing the risk of accidents. • Use the assessment results to make any necessary adjustments to the traffic management plan and improve traffic flow		

7.3 Environmental Monitoring Plan

The proposed environmental monitoring plan for industrial minerals mining operation is intended to promote sustainable management and acceptable mining practices. The plan functions as an early warning system, allowing for timely measures to reduce any environmental damage. Regular monitoring protocols includes air quality evaluations to check dust levels, vegetation monitoring to assess damage done to desert plant life, animal-related fatalities incidents (e.g. reptiles, scorpions etc.) and a focus on the Khan River environment. Regular monitoring is essential for detecting environmental degradation early and taking corrective action. Air quality must be assessed against national and international safety standards to maintain environmental compliance.

7.3.1 Air quality

Air quality may be impacted by particulate matter and dust generated by the extraction and processing of industrial minerals. Therefore, the air quality monitoring program will include several key indicators to assess these potential effects. These indicators include particulate matter (PM10 and PM2.5) levels, measured to track the concentration of dust particles in the air, which can affect both human health and the surrounding environment. Additionally, the monitoring program will assess levels of silica dust, a common byproduct of industrial mineral mining, and gaseous emissions such as nitrogen oxides (NOx) and sulfur dioxide (SO2) that may be released during mining operations. Monitoring wind speed and direction is also essential, as it influences the dispersion of dust across the area. Regular measurements will help evaluate the impact of mining activities on local air quality and ensure that pollutant levels remain within safe and sustainable limits, as outlined in ***Table 19***.

***Table 9**: Air quality monitoring parameters.*

Parameter	Description	Interval
Wind Speed and Direction	Monitors wind conditions to assess the dispersion patterns of dust and pollutants from the mining site.	Continuous (via automated sensors)
Total Suspended Particles (TSP)	Measures all particles suspended in the air, including larger particles that can settle and cause dust pollution.	Weekly
Gaseous pollutants (NOx, SO_2).	Gaseous pollutants emitted during mining operations, contributing to air pollution and respiratory issues.	Monthly
Silica Dust	Dust particles containing crystalline silica, commonly released during the extraction of industrial minerals, which can pose health risks when inhaled.	Monthly

7.3.2 Vegetation Cover

Although vegetation diversity and abundance in the area are quite low, the sparsely distributed desert shrubs present in the general vicinity could be impacted by dust generated from mining operations. Table 10 outlines a structured approach for ongoing monitoring of the effects of mining activities on vegetation in the surrounding area.

***Table 10**: Air quality monitoring parameters.*

Parameter	Description	Interval
Vegetation Cover Percentage	Measures the proportion of land covered by vegetation in the mining area, assessing overall plant cover changes due to mining activities.	Quarterly
Species Diversity	Evaluates the variety and abundance of plant species within the monitored area, indicating ecosystem health and biodiversity.	Annually
Dust Deposition on Vegetation	Tracks the accumulation of dust on plant surfaces, which can inhibit photosynthesis and reduce plant vitality.	Monthly

7.3.3 Animal-human incidents

Although animal diversity and abundance in the area are relatively low, the sparsely distributed desert reptiles, insects, and scorpions present in the general project area could still be affected by mining operations. Any encounters with these animals will be recorded daily, while the number and variety of species will be monitored quarterly to assess changes in wildlife populations resulting from the mining activities. This will include in area of Khan River.

7.3.4 Reporting

An annual environmental report will be prepared at the end of each year. The purpose of this report is to examine the project's impact on the environment, evaluate the effectiveness of mitigation, monitoring, and management measures applied, and recommend any necessary changes to mining operations based on the findings. The annual environmental report will be detailed, with an overview of the project's environmental performance, a review of any observable impacts, an assessment of mitigating methods, monitoring data, and recommendations for future improvements. This structured approach ensures that the project remains in compliance with environmental best practices and regulatory standards. The report will include the following information:

- Air Quality Report
- Vegetation Impact Report
- Animal Monitoring and Incident Report

Exceedance Reporting

If any measured environmental parameters (e.g. air quality parameter) exceed safe limits during mining operations, the proponent will notify the relevant authorities within one working day of identifying the exceedance. An investigation will be initiated within a timeframe agreed upon with these authorities. The resulting report will outline the corrective measures to be implemented to (i) reduce the impact or mitigate the source and (ii) restore environmental quality to the required levels of ecological protection. During this management phase, the operator will continue to monitor the environmental parameters to assess the progress of recovery. The recovery status following any exceedance will be documented in the annual Environmental Management Plan.

8 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

8.1 Discussion

The environmental impact assessment for the proposed mining of industrial minerals (mica) on mining claim licenses 74840, 74841, and 74843 has determined that the project is expected to have minimal negative impacts due to the low abundance of flora and fauna in the area. Some disturbance to natural habitat and the landscape is anticipated. The assessment considered factors including land use, air and water quality, land pollution, habitat modification, noise, biodiversity, and the human environment. Implementation of the Environmental Management Plan (EMP) will effectively mitigate identified impacts through a range of measures that promote sustainable practices throughout the project lifecycle. Additionally, the project has potential socio-economic benefits, such as local employment opportunities. Complementary assessments, including social and economic studies, are recommended to provide a holistic understanding of the project's overall effects.

8.1.1 Analysis of Alternatives

The current proposed mining site is necessitated due to natural availability of the industrial minerals contained within the mining claim license 74840, 74841, and 74843 and therefore, there are no alternatives to mining site.

8.2 Conclusion

In conclusion, the environmental impact assessment and the development of the Environmental Management Plan demonstrate a proactive approach to environmental stewardship and sustainable development. By implementing and regularly reviewing the EMP, the proposed mining activities have the potential to provide positive socio-economic benefits to local communities and the wider region, while safeguarding the natural and cultural heritage of the area.

8.3 Recommendations

Therefore, it is recommended that an Environmental Clearance Certificate (ECC) be granted to the Proponent for its proposed mining of industrial minerals (mica) on a mining claim license No 74840, 74841, and 74843 under the following conditions/recommendations:

- Extraction of mica should not take place in the riverbed.
- Rehabilitation (filling of trenches) should be done parallel to mica extraction. This means filling of trenches should be done immediately after a working site is completed and before moving to the next site.
- The Proponent must implement mitigation measures proposed in the Environmental Management Plan (EMP), hence making these documents legally binding documents.
- The EMP should be regularly reviewed and submitted to the relevant authorities including MEFT.
- An environmental management officer or consultant should be employed/contracted by the proponent to ensure EMP is implemented and updated regularly.
- MEFT officials may occasionally conduct spot inspections (non-auditing) without prior notice, or they may schedule an auditing inspection with dates set in advance of the site visit. As a result, any authorised representative of the Office of the Environmental Commissioner must be granted access to the site at any time during working hours throughout the mining cycle.
- In an event, unforeseen environmental impact arises, relevant authority and affected communities must be notified urgently and operation should be suspended until an approved mitigation strategies are conferred to the proponent.
- Annual Environmental Management Report must be made available to relevant authority and stakeholders.
- Consideration should be made by the proponent to reserve some employment opportunities for qualified local people.
- A copy of the Environmental Clearance Certificate (ECC), EMP, Environmental Audit and bi-annual monitoring reports must be kept at the site of the authorised activity and readily available for inspection by relevant authority including officials from MEFT and other stakeholders.
- Any other condition/recommendation that the Environmental Commissioner can add as he/she deem fit.

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APPENDICES

APPENDIX A: Curriculum Vitae of Lead EAP.

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PROFILE

Mr. Tobias Endjambi is an experienced researcher in various fields related to environment. He holds a Bachelor of Science in Fisheries and Aquatic Sciences (Honors) from UNAM and Master of Environmental Engineering from NUST.

EDUCATION

- University of Namibia : Bachelor of Science in Fisheries and Aquatic Sciences (2014).
- Namibia University of Science and Technology: Master of Environmental Engineering (2022).
- Benguela Current Convention- The Southern African Institute for Environmental Assessment: Certificate of Completion: *Understanding and Reviewing Environmental Impact Assessment and Strategic Environmental Assessment* (2021).
- Food and Agriculture Organisation – EAF Nansen Programme: Certificate of Completion: *EAF-Nansen Programme Training Course for Potential Co-Cruise Leaders on R/V Dr Fridjof Nansen Surveys* (2020).
- InDEEP: Certificate of Participation: *IDEEP Workshop on Biodiversity and Connectivity of Deep-Sea Ecosystems in Areas Targeted by Mining*

EXPERIENCE

- EIA for mining of industrial minerals in the Dorob National Park (Portal Research and Engineering CC)
- EIA for Fuel retail facility in Spitzkoppe (Portal Research and Engineering CC.
- EIA for Fuel retail facility in Omakange (Tortoise Environmental Consultancy).
- EIA on sand mining activities at Omapalala, Ondonga Traditional Authority (Tortoise Environmental Consultancy).
- EIA on sand mining activities in Okathitukiiyambo, Ongandjera Traditional Authority (Tortoise Environmental Consultancy).

REFERENCES

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APPENDIX B: Public Adverts.

INVITATION FOR PUBLIC PARTICIPATION

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED MINING OF INDUSTRIAL MINERALS ON MINING CLAIMS No: 74840, 74841 and 74843 IN THE ARANDIS CONSTITUENCY, ERONGO REGION

Mr T. K. Kaura (Or the Proponent) intends to apply for an Environmental Clearance Certificate (ECC) through the Ministry of Environment, Forestry and Tourism (MEFT) to mine industrial minerals (mica) from mining licence claims numbers: 74840, 74841 and 74843 in the Arandis Constituency, Erongo Region, Namibia.

APPOINTED CONSULTANT: The Proponent has appointed Portal Research and Engineering CC to facilitate public consultations and prepare reports required to support an application for the ECC at the Ministry of Environment, Forestry and Tourism (MEFT).

INVITATION TO PARTICIPATE: The appointed Consultant extend an invitation to the public and all Interested & Affected Parties (I & APs) to register their interests in receiving further information regarding the proposed activities. **This registration should be completed by July 12, 2024, and can be done at the following address**:

PRE

Portal Research and Engineering CC
P. O. Box 3826, Vineta; Email: connecttoportal@outlook.com;
Mobile: +264 816375489

Port of Walvis Bay News

General Cargo Vessel, GOLDEN KAROO (IMO: 9465423), sailing under the flag of Marshall Islands, docked at the Port of Walvis Bay on Monday this week to load 258 containers and discharge 689 copper blocks and 11 marble blocks. The General Cargo Vessel will depart today.

Bulk Carrier Vessel, BC PURPOSE (IMO: 9455387), sailing under the flag of Panama docked at the Port of Walvis Bay on Sunday, 23 June to discharge 13 000 MT Nickel Concentrate skips. The vessel departed yesterday. is a Bulk Carrier and is sailing under the flag of Panama. Her length overall (LOA) is 179.9 meters, and her width is 28 meters.

Reefer, BELUGA REEFER (IMO: 9015204), sailing under the flag of Bahamas docked at the Port of Walvis Bay to discharge 6 000 MT Ammonium Nitrate. The reefer will depart on Tuesday next week. Her length overall (LOA) is 158.13 metres, and her width is 24.4 metres.

General Cargo Vessel, KLAUS (IMO: 9570632), sailing under the flag of Portugal docked at the Port of Walvis Bay on 25 June to discharge 4 800 MT Gold Concentrates. She will depart on Monday, 1 July. Her length overall (LOA) is 130.19 metres, and her width is 16.5 metres.

Self-Discharging Bulk Carrier, SOLANJO (IMO: 8028486), sailing under the flag of Guinea-Bissau, will dock at the Port of Walvis Bay on Tuesday, 2 July to load 2 000 MT bagged salt. She will depart on Thursday, 4 July. Her length overall (LOA) is 67.77 metres, and her width is 13.82 metres.

General Cargo Ship, IVS KINGLET (IMO: 9459149), sailing under the flag of Marshall Islands will dock at the Port of Walvis Bay on Sunday, 30 June to load 4 500 MT Granite/Marble. She will depart on Thursday, 4 July. Her length overall (LOA) is 177 metres, and her width is 28.6 metres.

Airbus Identifies Key Unserved Routes in Africa

Eileen van der Schyff

At the AviaDev conference in Windhoek on 21 June, Airbus revealed a new report identifying important unserved routes in Africa. The report highlights cities like Lagos, Cape Town, Nairobi, Dakar, and Douala as having significant potential for new direct flights.

Airbus believes that opening these routes could improve travel connections, boost local economies, and increase airline revenues. Geert Lemaire, Airbus' Market Intelligence and Consulting Director noted that issues like restrictive air service agreements and economic challenges currently prevent these routes from being served. Lemaire emphasised Airbus' commitment to working with African airlines to find the best fleet solutions to help grow the continent's air travel industry.

According to Airbus' Global Market Forecast, air traffic in Africa is expected to grow by 4.1% annually over the next 20 years, creating a need for 1,180 new aircraft by 2043. This growth is also predicted to contribute to a 3.3% increase in Africa's GDP, higher than the global average. To support this growth, Airbus estimates that Africa will need 15 000 more pilots, 20 000 technicians, and 24 000 cabin crew members.

For more details, readers can access Airbus' full analysis on unserved routes.

DAILY ARRIVALS

DATE	TIME	VESSEL NAME	GRT	LOA	TYPE	AGENT
25-Jun	8:30	MAERSK SHEERNESS	93511	334M	CONTAINER	SHARAF
26-Jun	5:00	GREY FOX	22863	170M	MULTI PURPOSE	MACS
27-Jun	17:00	MAERSK CAP CARMEL	25709	208M	CONTAINER	SHARAF
27-Jun	7:00	IVS KINGLET	21483	177M	BULK	GAC
27-Jun	7:00	SB SOUTH ATLANTIC	2085	63M	TUG	LSS
28-Jun	8:00	GREATSHIP RAMYA	3765	78M	WELL STIMULATION VSL	OLS
28-Jun	12:00	LOGOS HOPE	12519	133M	PASSENGER	OLS
29-Jun	5:00	VENUS 1	4407	105M	F/V	TRADE OCEAN
29-Jun	5:00	KATANGA	7253	119M	F/V	TRADE OCEAN
29-Jun	5:00	FIVOS	33456	190M	BULK	OLS
29-Jun	1:00	MSC RESILIENT III	27093	210M	CONTAINER	MSC NAM
29-Jun	13:00	PESCARA	35998	231M	CONTAINER	SHARAF
30-Jun	5:00	KOMESHO	5579	114M	F/V	TRADE OCEAN
1-Jul	3:00	UAL MANITOBA	9611	138M	GENERAL CARGO	LSS
1-Jul	5:00	TUTUNGENI	7765	121M	F/V	NAMSOV
2-Jul	9:00	ATLANTIC DAWN	5460	112M	GENERAL CARGO	BOLLORE
2-Jul	6:00	NORDIC MALMO E	24212	180M	MULTI PURPOSE	MACS
2-Jul	12:00	ZOLLAND	4487	98M	MULTI PURPOSE	C. STEINWEG MARINE
2-Jul	6:00	SOLANJO	1533	68M	GENERAL CARGO	PAN AVEST
3-Jul	6:00	ARGEO VENTURE	6578	85M	SEISMIC	EXPRESS
3-Jul	6:00	ONEGO MISTRAL	5338	117M	GENERAL CARGO	CFS NAM
4-Jul	18:00	DESERT JEWEL	4407	105M	F/V	EME
4-Jul	8:00	SILVER MOON	47090	183M	RO RO	COMET
4-Jul	16:00	CMA CGM OTELLO	91410	334M	CONTAINER	CMA CGM

NOTICES & VACANCIES

NOTICE OF THE CONSENT APPLICATION IN TERMS OF THE WALVIS BAY TOWN PLANNING SCHEME

CONSENT: The Printing Shop **ON ERF NO:** 5294 **TOWNSHIP/AREA:** Kuisebmond **STREET NAME & NO:** Kingshasha Street

In terms of the Walvis Bay Town Planning Scheme, notice is hereby given that I/we, the undersigned, have applied to the Municipality of Walvis Bay for permission to erect/establish on the site a/an: **The Printing Shop**

Plans may be inspected or particulars of this application may be obtained at Town Planning, First Floor, Rooms 101 & 105, Civic Centre.

Any person having any objection to the approval of this application, must lodge such objection, together with grounds thereof, with the General Manager: Roads and Building Control, (Town Planning), Private Bag 5017, Walvis Bay and the applicant, in writing, not later than **26 July 2024**

NAME AND ADDRESS OF APPLICANT:
Shaun VR Lodewyk
PO Box 1702 Walvis Bay, cell: 081 842 4700
Email:
romandostrading@gmail.com.

KINGLAW

ESTATE NOTICE

ESTATE NUMBER: E 1037/2024

In the estate of the late **PETER SCHOMMARZ**, Identity Number 321010 0040 7, who died on 19 April 2024, resided at No. 10 Heliodoor Street, Vineta, Swakopmund, Namibia and who was married out of community of property. Creditors and debtors of the above estate are called upon to lodge their claims or pay their debts to the Estate at the undermentioned address within a period of 30 days as from date of publication of this notice.

H E AHRENS,
EXECUTRIX
c/o KINGHORN ASSOCIATES INC.
HAUS ALTONA
2 – 6 TOBIAS HAINYEKO STREET
P O BOX 1455
SWAKOPMUND
(REF. HEA/AW EST 348/0001-50)

ERONGO red
power to the people

EXTERNAL VACANCY
SIX (6) MONTHS FIXED-TERM CONTRACT
TEMPORARY ADMINISTRATION CLERK
Business Unit: Network Operations & Maintenance
Paterson Grade: B4
Duty Station: Walvis Bay

Erongo Regional Electricity Distributor Company (Pty) Ltd, commonly known as Erongo RED is mandated to distribute and supply electricity in the Erongo Region. We are proud to announce that Erongo RED is an equal opportunity employer. Qualified applicants from the designated groups defined in the Affirmative Action (Employment) Act, Act No. 29 of 1998 are encouraged to apply. Preference will be given to women and persons with disability.

JTC Private School Walvis Bay

We would like to inform the public that our enrollment for Pre-Primary & Grade 1 for 2025 academic year will take place on

Saturday 06 July 2024
Time: 09H30
Venue: At school
For details please contact 064-209 097
081 280 0648

NOTICE IN TERMS OF THE URBAN AND REGIONAL PLANNING ACT OF 2018, AND WALVIS BAY ZONING SCHEME

Stewart Planning intends to apply to the Municipality of Walvis Bay, and/or Ministry of Urban and Rural Development for the following:

1. Erf 373 Meersig (c/o Second Street North and Sixth Road West): Rezoning from Single Residential (1:500) to Single Residential (1:300) and subdivision into three equal land por-tions, each portion measuring ±396m². The intention is to develop up-market dwelling houses.

2. Erf 552 Meersig (No. 5 Kort Street): Withdrawal of previous subdivision and Diagram No.A76/2017. Deletion and alteration of conditions of title, and rezoning from Single Residential (1:500) to Single Residential (1:300) and subdivision into three land portions.

3. Erf 632 Meersig (No. 24 Seventh Road West): Consent for a bed and breakfast comprising of 5 bedrooms.

The aforementioned applications are submitted in terms of the Urban and Regional Planning Act, 2018 (Act No. 5 of 2018), and/or Walvis Bay Zoning Scheme, as amended.

Take note that –

(a) the planning application for each project lies open for inspection, during normal office hours, at Room 101, Town Planning Section of Municipality of Walvis Bay, Civic Centre, and at Stewart Planning, 122 Sam Nujoma Avenue, Walvis Bay. An electronic copy can be requested from Mr JN Otto: otto@sp.com.na

(b) interested and/or affected parties can register with Stewart Planning and submit their written comments, representations, input and/or objections to the planning applications together with grounds thereof.

(c) the deadline to register with Stewart Planning and to submit written comments, representations, input and/or objections will be on or before **17:00 Tuesday, 30 July 2024.**

Stewart Planning
Town & Regional Planners
PO Box 2095 Walvis Bay
otto@sp.com.na
+264 64 280 773
+264 85 754 4740

NOTICES & VACANCIES

ESTATE NOTICE

In the **ESTATE OF ERNIE DERRICK DUIKER** who died on **11 MARCH 2024** and was residing at 40 Omeg Street, Vineta, Swakopmund, Republic of Namibia.

Creditors and debtors of the above Estate are requested to lodge their claims against the Estate or pay thier debts to the Estate at the undermentioned address whthin a period of **30 (THIRTY)** days as from the date of publication of this advertisement

Pieter Hamman
Legal Practitioners
No. 15, Altstadthof
Libertina Amathila Avenue
Swakopmund
Ref PFH/ml/am-MAT19850)

INVITATION FOR PUBLIC PARTICIPATION

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED MINING OF INDUSTRIAL MINERALS ON MINING CLAIMS No: 74840, 74841 and 74843 IN THE ARANDIS CONSTITUENCY, ERONGO REGION

Mr T. K. Kaura (Or the Proponent) intends to apply for an Environmental Clearance Certificate (ECC) through the Ministry of Environment, Forestry and Tourism (MEFT) to mine industrial minerals (mica) from mining licence claims numbers: 74840, 74841 and 74843 in the Arandis Constituency, Erongo Region, Namibia.

APPOINTED CONSULTANT: The Proponent has appointed Portal Research and Engineering CC to facilitate public consultations and prepare reports required to support an application for the ECC at the Ministry of Environment, Forestry and Tourism (MEFT).

INVITATION TO PARTICIPATE: The appointed Consultant extend an invitation to the public and all Interested & Affected Parties (I & APs) to register their interests in receiving further information regarding the proposed activities. **This registration should be completed by July 12, 2024, and can be done at the following address:**

PRE

CLASSIFIEDS

INVITATION FOR PUBLIC PARTICIPATION

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED MININING OF INDUSTRIAL MINERALS ON MINING CLAIMS No: 74840, 74841 and 74843 IN THE ARANDIS CONSTITUENCY, ERONGO REGION

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Portal Research and Engineering CC
P. O. Box 3826, Vineta
Email: connecttoportal@outlook.com;
Mobile: +264 816375489

PRE

ENVIRONMENTAL CLEARANCE NOTICE

CIERD Centre for Impact Evaluation and Research Design
Baseline Surveys
Monitoring & Evaluation
Impact Evaluation
Environmental Impact Assessment

Public Participation Notice in terms of Regulation No. 29, Section 21 under the Environmental Management Act (Act No. 7 of 2007)

Zero Carbon Industrial Park to harness the power of wind and solar energy to develop a cutting-edge, multi-industry facility in the expanded Townlands, Erongo Region

Notice is hereby given to all Interested and Affected Parties (I&APs) that an application will be submitted to the Environmental Commissioner under the Environmental Management Act (No. 7 of 2007) and its Regulations (2012) for the following proposed activity:

- Project Name : Zero Carbon Industrial Park
- Project Location : Arandis Townlands, Erongo Region,Namibia
- Proponent : Afri-Track Namibia Holdings (Pty) Ltd t/a Zero Carbon Namibia
- Competent Authority : Ministry of Environment, Forestry and Tourism (MEFT)
- Environmental Assessment Practitioner : Centre for Impact Evaluation & ResearchDesign
- Project Description : Afri-Track Zero Carbon, a Namibian company, has embarked on an ambitious project to harness the power of wind and solar energy to develop a cutting-edge, multi-industry facility in the expanded Arandis Townlands. The project includes the construction of a state-of-the-art 1GW wind and solar farm that will generate clean and renewable energy to power the facility.

All Interested and Affected Parties (I&APs) are encouraged to register and raise concerns or provide comments and opinions on or before 14 July 2024. Background Information Document (BID) will be provided upon indication as an I&AP.

Public Consultation meeting date: TBA | Venue: TBA

Should you wish to register as an I&AP, please contact the EAP:
Call / SMS / WhatsApp: +264 81 878 6676 / +264 85 333 4090
Email: C4IERD@gmail.com

ZCN

NOTICE FOR ENVIRONMENTAL IMPACT ASSESSMENT

Environclim Consulting Services cc hereby gives notice to all potentially Interested and Affected Parties (I&APs) that an application will be made to the Environmental Commissioner in terms of the Environmental Management Act (No 7 of 2007) and Environmental Impact Assessment Regulations (GN 30 of 6 February 2012) for the following:

PROJECT NAMES: Environmental Impact Assessment (EIA) for the establishment of mining activities for dimension stone on Mining License (ML 255), at Farm Mon Repo, Karibib, Erongo Region

PROJECT LOCATION:

The ML 255 is situated approximately 21 Km south-west of Karibib within the Karibib District, Erongo Region.

PROJECT DESCRIPTION:

The project involves conducting an Environmental Impact Assessments (EIA) for the establishment of mining activities for dimension stone on ML 255, at Farm Mon Repo, Karibib district, Erongo Region.

PROJECT INVOLVEMENT:

Proponent: Blue Sky Mining CC

Environmental Assessment Practitioner (EAP): Environclim Consulting Services cc

REGISTRATION OF I&APs AND SUBMISSION OF COMMENTS: In line with Namibia's Environmental Management Act (No. 7 of 2007) and EIA regulations (GN 30 of 6 February 2012), all I&APs are hereby invited to register and submit their comments, concerns or questions in writing via: Email; environclim@gmail.com on or before Friday 19th July 2024.

A public participation meeting will be held as follows:
Place: Community Hall, Karibib
Date: 06th July 2024
Time: 10h00 a.m

Contact: +264 81 595 5643
Email: environclim@gmail.com

EnvironClim Consulting Services

CLASSIFIEDS

INVITATION FOR PUBLIC PARTICIPATION

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED MININING OF INDUSTRIAL MINERALS ON MINING CLAIMS No: 74840, 74841 and 74843 IN THE ARANDIS CONSTITUENCY, ERONGO REGION

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ENVIRONMENTAL CLEARANCE NOTICE

CIERD
Centre for Impact Evaluation and Research Design

Baseline Surveys
Monitoring & Evaluation
Impact Evaluation
Environmental Impact Assessment

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PROJECT NAMES: Environmental Impact Assessment (EIA) for the establishment of mining activities for dimension stone on Mining License (ML 255), at Farm Mon Repo, Karibib, Erongo Region

PROJECT LOCATION:

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PROJECT DESCRIPTION:

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PROJECT INVOLVEMENT:

Proponent: Blue Sky Mining CC

Environmental Assessment Practitioner (EAP): Environclim Consulting Services cc

REGISTRATION OF I&APs AND SUBMISSION OF COMMENTS: In line with Namibia's Environmental Management Act (No. 7 of 2007) and EIA regulations (GN 30 of 6 February 2012), all I&APs are hereby invited to register and submit their comments, concerns or questions in writing via: Email; environclim@gmail.com on or before Friday 19th July 2024.

A public participation meeting will be held as follows:
Place: Community Hall, Karibib
Date: 06th July 2024
Time: 10h00 a.m

Contact: +264 81 595 5643
Email: environclim@gmail.com

EnvironClim Consulting Services

APPENDIX C: Meeting attendance register.

Name	Organisation	Contact (phone/email)	Signature
FESTUS TOMAS	COMMUNITY	0817087 279	
Ruben Stephanus	Community	0818685709	
Akser Oscar	Community	0817997070	
Verimuna Kandingha	community	0818736960	
Samuel shikambe	community	0818089047	
Kawa Allaman	community	0812013737	
Kaleta moses	community	0817109036	
Rohinezeh	COMMUNITY	0814138311	
Tobias Endjaula	PRECC (Consultant)	0814633427	

APPENDIX D: Environmental Clearance Certificate for mining of Semi-Precious Stones

ECC- 2401927

Serial: 24RYnHp1927

REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

ENVIRONMENTAL CLEARANCE CERTIFICATE

ISSUED

In accordance with Section 37(2) of the Environmental Management Act (Act No. 7 of 2007)

TO

Mr. T. K. Kaura

P. O. Box 4571, Swakopmund

TO UNDERTAKE THE FOLLOWING LISTED ACTIVITY

Mining Activities for Semi Precious Stones on Mining Claim No. 74840, 74841 and 74843 in the Arandis Constituency, Erongo Region, Namibia.

Private Bag 13306
04 NOV 2024

ENVIRONMENTAL COMMISSIONER

Issued on the date: 2024-10-21

Expires on this date: 2027-10-21

(See conditions printed overleaf)

"Stop the poaching of our rhinos"

This certificate is printed without erasures or alterations

CONDITIONS OF APPROVAL (READ JOINTLY WITH NOTIFICATION OF DECISION)

1. This environmental clearance is valid for a period of 3 (three) years, from the date of issue unless withdrawn by this office
2. This certificate does not in any way hold the Ministry of Environment, Forestry and Tourism Accountable For Misleading Information, nor any adverse effects that may arise from these activities. Instead, full accountability rests with the proponent and its consultants
3. This Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project
4. All applicable and required permits are obtained and mitigation measures stipulated in the EMP are applied particularly respect to management of ecological impacts.
5. Strict compliance with conditions attached to the consent received from National Heritage Council is expected throughout the life span of the proposed activity, therefore any new archaeological finds must be reported to the National Heritage Council for appropriate handling of such.

APPENDIX E: Consent letter from JTD Mining Group (PTY) Ltd.

Agreement

for

JTD MINING GROUP (PTY) LTD
REG .NO....
("hereinafter referred to as EPL HOLDER")

&

Mr. TJIUEE KAEVATERE KAURA

ID NO 93033100414

("hereinafter referred to as CLAIM APPLICANT")

CLAIM NO.:74840,74841,74843

"JTD MINING GROUP (PTY) LTD, REG NO 2019/0997 (Hereinafter referred to as the EPL NO. 7862 holder) is the rightful holder owner in Arandis, in Erongo Region
Mr. TJIUEE KAEVATERE KAURA ("hereinafter referred to as CLAIMS APPLICANT")

The JTD MINING GROUP (PTY) LTD have grant Mr. TJIUEE KAEVATERE KAURA to apply for the mining claims (three mining claims) for semi-precious stones in the above mentioned EPL, the management have no objection on Mr. TJIUEE KAEVATERE KAURA applications in the EPL 7862.

Our management ask your people to give him you full support

Yours
JTD MINING GROUP (PTY) LTD

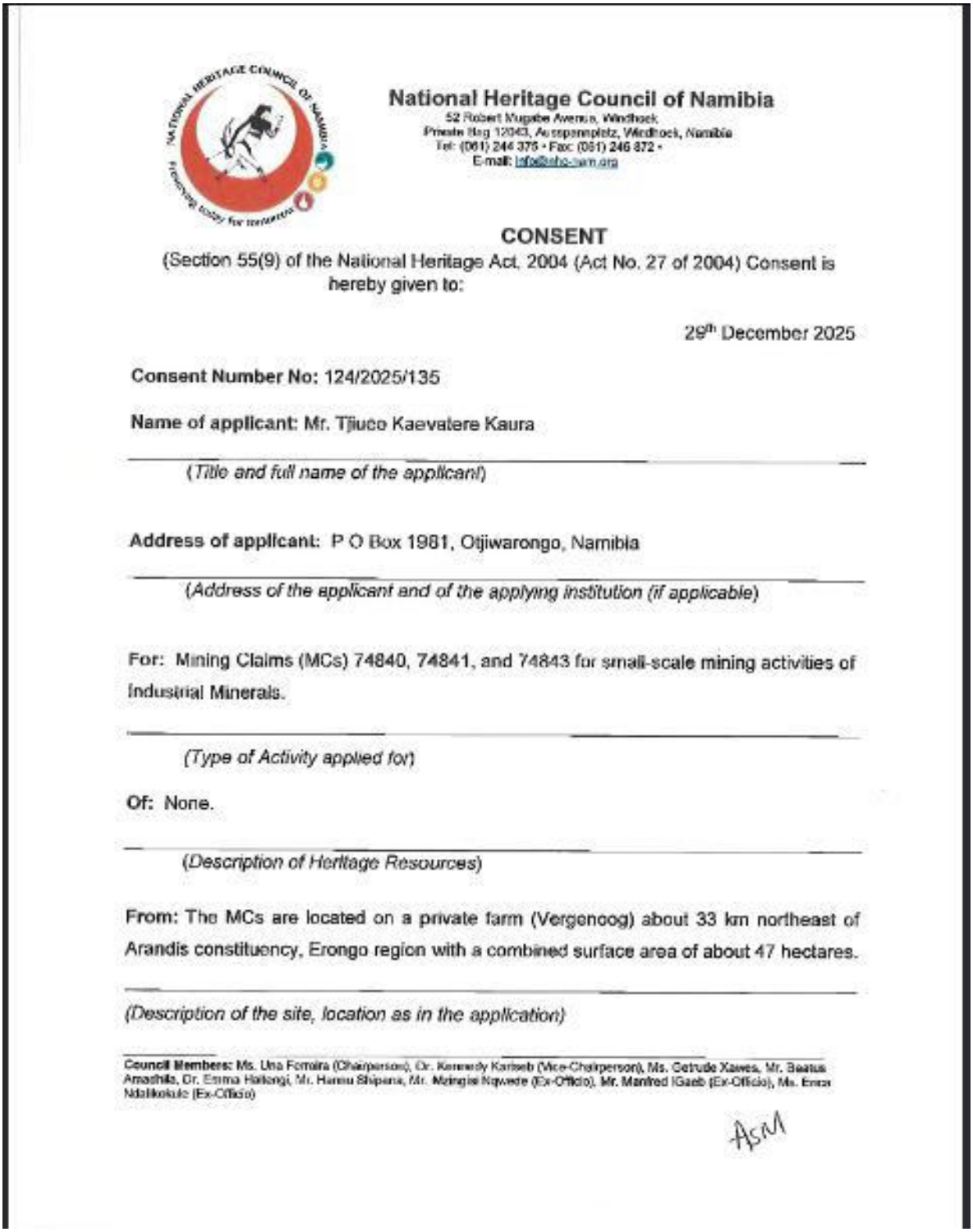
.....
Signature

Date: 12/06/2024

JTD MINING GROUP (PTY) LTD
Reg. No. 2019099[illegible]

.....
(1) *Authorized Signature (s)*

APPENDIX F: Consent letter from National Heritage Council



National Heritage Council of Namibia
52 Robert Mugabe Avenue, Windhoek
Private Bag 12043, Ausspannplatz, Windhoek, Namibia
Tel: (061) 244 375 • Fax: (061) 246 872 •
E-mail: info@nhc-nam.org

CONSENT

(Section 55(9) of the National Heritage Act, 2004 (Act No. 27 of 2004) Consent is hereby given to:

29th December 2025

Consent Number No: 124/2025/135

Name of applicant: Mr. Tjiuco Kaevatere Kaura

(Title and full name of the applicant)

Address of applicant: P O Box 1981, Otjiwarongo, Namibia

(Address of the applicant and of the applying institution (if applicable)

For: Mining Claims (MCs) 74840, 74841, and 74843 for small-scale mining activities of Industrial Minerals.

(Type of Activity applied for)

Of: None.

(Description of Heritage Resources)

From: The MCs are located on a private farm (Vergenoog) about 33 km northeast of Arandis constituency, Erongo region with a combined surface area of about 47 hectares.

(Description of the site, location as in the application)

Council Members: Ms. Una Ferreira (Chairperson), Dr. Kennedy Kariseb (Vice-Chairperson), Ms. Getrude Xawes, Mr. Beatus Amathila, Dr. Emma Haitengi, Mr. Hamuu Shipena, Mr. Maingise Nguvete (Ex-Officio), Mr. Manfred IGaeb (Ex-Officio), Ms. Emma Ndalikokule (Ex-Officio)

AsM

Consent Number No: 124/2025/135

In accordance with: Heritage Impact Assessment Report for the proposed small-scale mining activities on the Mining Claims (MCs) 74840, 74841, and 74843 for small-scale mining activities of Industrial Minerals, Erongo Region.

Permit application date: 11/09/2025

(Specify relevant documentation and Permit application date)

The following conditions (imposed in terms of section 55(9) of the Act.) apply to this permit:

a) Monitoring and evaluation inspection will be carried out on the area during the course of the year.
b) Failure to adhere to the conditions will attract fines or imprisonment or the retraction of the consent as per the National Heritage Act no. 27 of 2004.
c) As per Section 55 (9) (a) the activity authorized by this consent be supervised by a person with appropriate professional qualifications or experience.
d) The proponent should take caution approaches together with the compliance and of the Chance Find Procedure.
e) The consent holder is to report back to the National Heritage Council every six (6) months on compliance with the conditions of this consent.
f) This consent does not exempt the holder from any conditions that may be imposed by owners, hosts or any other relevant authorities in consultation with NHC who have a stake in the project area.
g) NHC shall not be liable for any losses, damages or injuries to persons or properties as a result of any activities related to this permit.
h) This Consent is subject to the provisions of the National Heritage Act (Act 27 of 2004). Should any of the conditions contained herein conflict with the Act; the provisions of the Act as per section 55 (10) shall prevail.

Consent Number No: 124/2025/135

i) This consent is renewable, upon submission of an application at least two months before the current permit lapses.

This Consent will be valid from 29th December 2025 to 28th December 2026.

Erica M.P. Ndalikokule
Director: National Heritage Council of Namibia

National Heritage Council of Namibia
Office of the Director
29 DEC 2025
Private Bag 12043
Ausspannplatz
Windhoek, Namibia