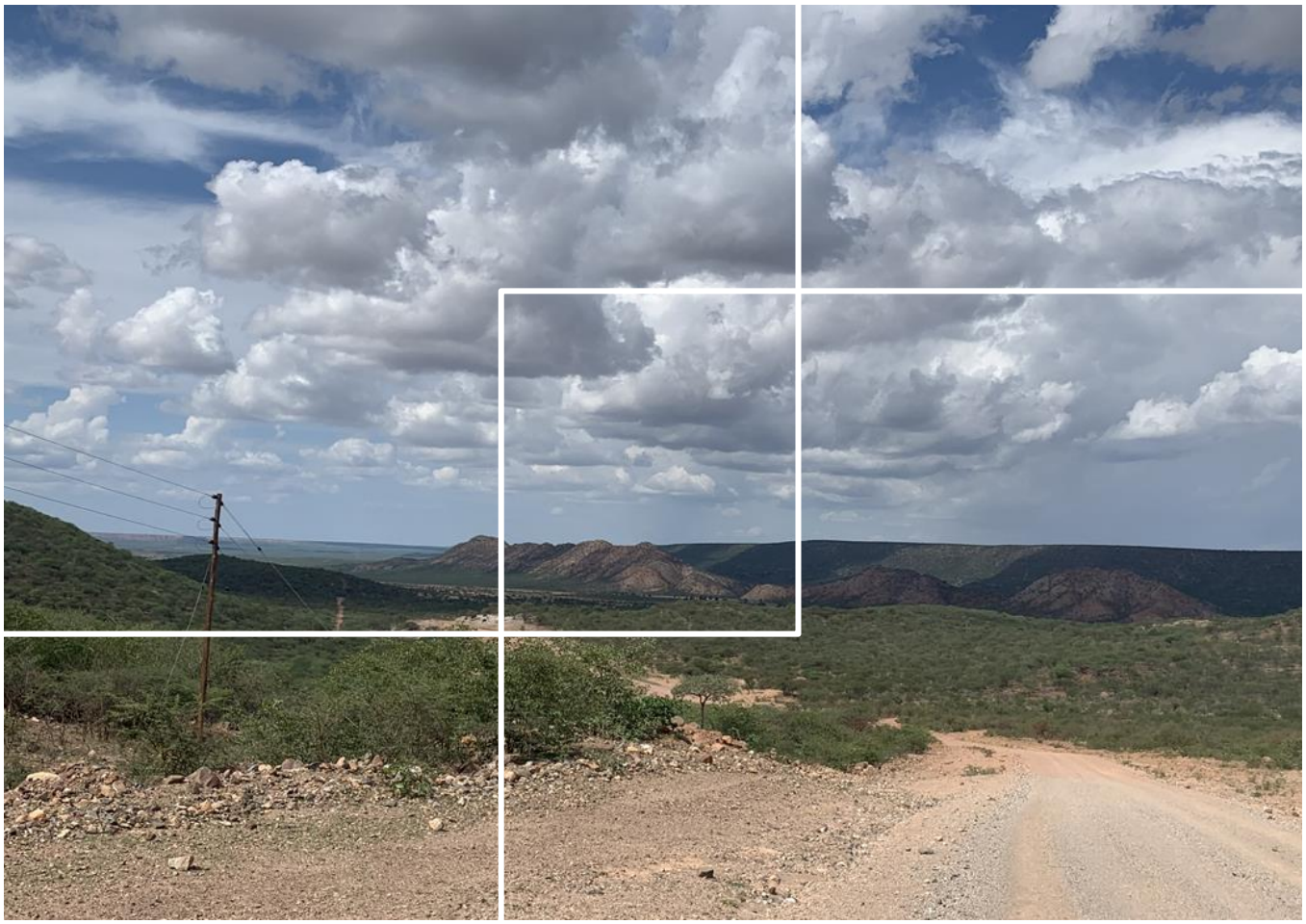

skorpion zinc

Submitted to: Skorpion Mining Company (Pty) Ltd
Attention: Mr Westley Price
C13 Road
Rosh Pinah, 9000
Namibia

REPORT:

SCOPING REPORT PLUS IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES ON EPL 8572, KUNENE REGION, NAMIBIA

Prepared by:

PROJECT NUMBER:	ECC-99-387-REP-09-D
REPORT VERSION:	REV 01
DATE:	SEPTEMBER 2022

ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

TITLE AND APPROVAL PAGE

Project Name:	Scoping report plus impact assessment for exploration activities on EPL 8572, Kunene Region, Namibia
Client Company Name:	Skorpion Mining Company (Pty) Ltd
Client Representatives:	Mr Westley Price
Ministry Reference:	APP-0010360
Authors:	Monique Jarrett, Diaan Hoffmann and Jessica Bezuidenhout
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EXECUTIVE SUMMARY

Skorpion Mining Company (Pty) Ltd (The Proponent) to conduct an environmental and social impact assessment (ESIA) for exploration of base, rare and precious metals and industrial minerals within the proposed exclusive prospecting licence area located on (EPL) 8572. EPL 8572 is located within the Opuwo District, in the Kunene Region and is accessible via a network of main tar roads C41 and the C43 and the D3720 gravel road.

The proposed Project triggers listed activities in terms of the Environmental Management Act, No. 7 of 2007 and its regulations, No. 30 of 2012. Therefore, an environmental clearance certificate is required. As part of the environmental clearance certificate application, an Environmental Impact Assessment (EIA) has been undertaken to satisfy the requirements of the Environmental Management Act, No. 7 of 2007. This environmental report and environmental management plan (EMP) shall be submitted to the competent authority as part of the application for the environmental clearance certificate.

The proposed activities on EPL 8572 include extremely low-impact exploration such as remote sensing from satellites and electromagnetic surveys to detect any mineralization in the area to more invasive methods such as RC and diamond drilling. Existing tracks shall be used as far as reasonably practicable. If new tracks are required, they will be developed by hand or by use of a bulldozer, terrain dependent. Vegetation clearing will be limited to clearing for access tracks and site camps. Access agreements will be entered into with all farmers or holders of private ground which may be accessed.

The exploration activities will commence as soon as an environmental clearance certificate has been granted and activities are expected to be conducted over 3 years, or the duration of the exploration licence.

EPL 8572 is situated in the north-western part of Namibia in the Kunene Region where it falls over two communal conservancies namely Ombombo and Otjindjerese. The regional geology of this area consists mainly of the Kalahari and Namib Sands Group, the Huab Basin Group (western side of the EPL) and small sections of the Otavi Group to the eastern, north-and southwestern sides of the EPL. The main rock types are limestones, dolomites, sandstones, shales, sands and calcrete. The EPL area is largely covered by ferralic Arenosols, Petric Calcisols (western side) and smaller sections of rock outcrops, lithic Leptosols and eutric Regosols. The groundwater vulnerability in this area is considered to be high and smaller sections very high and very low (Porous aquifer) and groundwater recharge within this area is considered to be low (>0.5 to 1 % of the total average rainfall). In this part of Namibia, the following tree and shrub species are either protected under national legislation, endemic, near-endemic or listed in the CITES appendices. The overall terrestrial diversity for this area is low to moderate compared to other parts of the country. The locals of these communities are mainly employed by lodges, camps, or the locals farm with livestock in the area. Tourism

and consumptive wildlife use are the main benefit contributor to these local communities, in addition, income generated from plant products and local crafts.

The impacts of exploration activities related to airborne dust are expected to be limited to vehicular traffic. There will be some release of exhaust fumes from machinery that will impact the immediate vicinity but will be of short duration and limited distance from the source.

Additionally, there will be associated drilling and machinery noise, which could be a disturbance to immediate neighbours and possibly wildlife, but this will be of short duration. Through further investigation, it was determined that the effects from noise are considered to be of minor significance, however with additional mitigation, the significance is reduced to low. The additional mitigation measures include:

- Residents shall be provided at least two weeks' notice of drilling operations within 1km of their property;
- Activities will be minimized to allocated daylight working hours;
- Continual engagement with residents and management of the national park shall be undertaken by the Proponent to identify any concerns or issues, and appropriate mitigation and management measures shall be further agreed upon; and
- Noise suppression measures shall be applied if drilling occurs in locations that may affect residents.

The overall potential impact of this proposed Project is not considered significant as it does not widely exceed recognised levels of acceptable change, does not threaten the integrity of the receptors, and is not material to the decision-making process. The assessment is considered to be comprehensive and sufficient to identify impacts, and it is concluded that no further assessment is required.

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TERMS AND ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
AEM	Aerial electromagnetic survey
BID	Background Information Document
CITES	The Convention on International Trade in Endangered Species
DEA	Directorate of Environmental Affairs
EC	Environmental Commissioner
ECC	Environmental Compliance Consultancy
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
EMA	Environmental Management Act, No.7 of 2007
EMP	environmental management plan
ENE	East-Northeast
EPL	Exclusive Prospecting Licence
ESIA	Environmental and Social Impact Assessment
GDP	Gross Domestic Produce
I&APs	Interested and Affected Parties
IFC	International Finance Corporation
IUCN	International Union for Conservation of Nature
LDVs	Light Duty Vehicles
MEFT	Ministry of Environment, Forestry and Tourism
MME	Ministry of Mines and Energy
NCAA	Namibia Civil Aviation Authority
NDP	National Development Plan
NPC	National Planning Committee
NSA	National Statistics Agency
RC	Reverse Circulation
RH	Relative Humidity
SSW	South-Southwest
SW	Southwest

1 INTRODUCTION

1.1 COMPANY BACKGROUND

Environmental Compliance Consultancy (ECC) has been retained Skorpion Mining Company (Pty) Ltd (The Proponent) to conduct an environmental and social impact assessment (ESIA) for exploration of base, rare and precious metals and industrial minerals within the proposed exclusive prospecting licence area located on (EPL) 8572. EPL 8572 is located within the Opuwo District, in the Kunene Region and is accessible via a network of main tar roads C41 and the C43 and the D3720 gravel road. The location of EPL 8572 is shown in Figure 1.

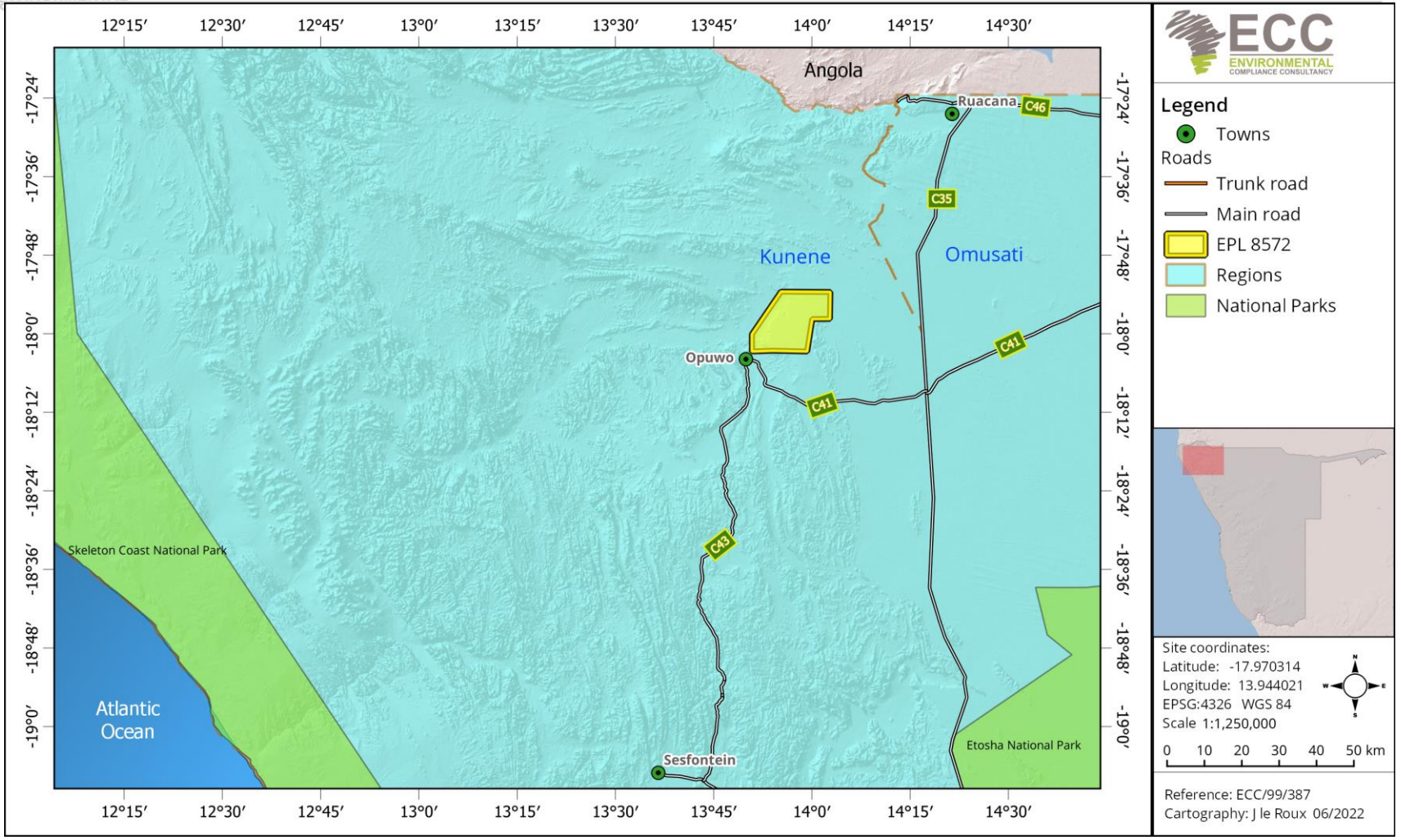


Figure 1 - Locality map of EPL 8572, Kunene Region

1.2 PURPOSE OF THE SCOPING REPORT

An environmental and social impact assessment (ESIA) has commenced in terms of the requirements of the Environmental Management Act, No.7 of 2007 (EMA 2007) and its regulations. The purpose of this report is to present the findings of the scoping study phase that forms part of the larger ESIA process.

The scoping report summarises the prescribed ESIA process followed; provides information on the baseline biophysical and socioeconomic environments; project description details; outlines the terms of reference for the assessment phase and presents a environmental management plan (EMP), which is provided.

ECC's terms of reference for the assessment is strictly to address potential effects, whether positive or negative and their relative significance, explore alternatives for technical recommendations and identify appropriate mitigation measures.

This report provides information to the public and stakeholders to aid in the decision-making process for the proposed Project. The objectives are to:

- Provide a description of the proposed activity and the site on which the activity is to be undertaken, and the location of the activity on the site;
- Provide a description of the environment that may be affected by the activity;
- Identify the laws and guidelines that have been considered in the assessment and preparation of this report;
- Provide details of the public consultation process;
- Describe the need and desirability of the activity;
- Provide a high level environmental and social impact assessment on feasible alternatives that were considered; and
- Report the assessment findings, identifying the significance of effects, including
- cumulative effects, and effective and feasible mitigation measures.

In addition to the environmental assessment, an EMP (Appendix A) is also required in terms of the Environmental Management Act, No. 7 of 2007. An EMP has been developed to provide a management framework for the planning and implementation of exploration activities. The EMP provides exploration standards and arrangements to ensure that the potential environmental and social impacts are mitigated, prevented and/or minimised as far as reasonably practicable, and that statutory requirements and other legal obligations are fulfilled.

1.3 Proponent Details

Table 1 - Proponent's details

Contact Person	Contact Details
Skorpion Mining Company (Pty) Ltd Mr Westley Price (Deputy Head of Exploration)	wprice@vedantaresources.co.za +27 54 983 9241 C13 Road Rosh Pinah, 9000 Namibia

1.4 Environmental Compliance Consultancy

ECC, a Namibian consultancy (registration number Close Corporation 2013/11401), has prepared this scoping report and impact assessment on behalf of the Proponent. ECC operates exclusively in the environmental, social, health and safety fields for clients across southern Africa, in both the public and private sectors. ECC is independent of the Proponent and has no vested or financial interest in the proposed Project, except for fair remuneration for professional services rendered. All compliance and regulatory requirements regarding this ESIA report should be forwarded by email or posted to the following address:

Environmental Compliance Consultancy
PO BOX 91193
Klein Windhoek, Namibia
Tel: +264 81 669 7608
Email: info@eccenvironmental.com

1.5 ENVIRONMENTAL LEGAL REQUIREMENTS

The Environmental Management Act, No.7 of 2007 stipulates that an environmental clearance certificate is required to undertake listed activities in terms of the Act and its regulations. Listed activities triggered by the Project in terms of the Environmental Management Act, No. 7 of 2007 and its regulations are as follows:

Table 2 - Listed activities triggered by the Project

Listed Activity	ESIA Screening Finding
WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES (2.1) The construction of facilities for waste sites, treatment of waste and disposal of waste. (2.3) The import, processing, use and recycling, temporary storage, transit or export of waste.	• Waste generated which will mainly consist of solid waste and general waste during the exploration phase will be removed by a skip and will be disposed of at the nearest registered landfill site. • Waste will be recycled, where possible. • A portable chemical toilet, long drop hole for a toilet or chemical toilets will be used during the exploration phase by the drill crew.
MINING AND QUARRYING ACTIVITIES (3.1) The construction of facilities for any process or activities which requires a license, right or other forms of authorisation, and the renewal of a license, right or other forms of authorisation, in terms of the Minerals (Prospecting and Mining Act), 1992. (3.2) Other forms of mining or extraction of any natural resources whether regulated by law or not. (3.3) Resource extraction, manipulation, conservation, and related activities	• The proposed project has obtained an EPL from MME; now requires an environmental clearance certificate from DEA/MEFT for the search of base and rare metals, industrial minerals and precious metals. • The proponent will be undertaking exploration activities on EPL 8572, which will include: geological mapping, geochemical sampling, remote sensing, airborne geophysics, ground geophysics, reverse circulation drilling and diamond drilling.

Listed Activity	ESIA Screening Finding
FORESTRY ACTIVITIES (4.) The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in term of the Forest Act, 2001 (Act No. 12 of 2001) or any other law.	• Limited vegetation clearing may be required for tracks and survey access creation, and possibly for the setup of survey and drilling teams' field camps. Clearing of large trees will be avoided
WATER RESOURCE DEVELOPMENTS (8.1) The abstraction of ground or surface water for industrial or commercial purposes.	• For the drilling of exploration boreholes, groundwater may need to be abstracted, or water will be carted/transported from nearby approved sources.
HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE (9.2) Any process or activity which requires a permit, licence or other form of authorisation, or the modification of or changes to existing facilities for any process or activity which requires an amendment of an existing permit, licence or authorisation or which requires a new permit, licence or authorisation in terms of a law governing the generation or release of emissions, pollution, effluent or waste.	• Portable chemical toilets, long drop hole for toilet will be used during the exploration activities. • Chemical toilets can be used during the Project • Bulk fuel may be required for the onsite generation of electricity, and for refuelling the prospecting crews and fleet. • Consumer installation certificates are required for bulk fuel storage and dispensing. • Smaller volumes of hazardous chemicals (oil, grease, diesel etc.) will be stored in drip trays to avoid contamination/pollution. • MSDS sheets will be kept onsite, accessible and used for all dangerous materials, chemicals, solvents, lubricants and related substances. The MSDS sheets ensure proper transport, handling, storage, use, disposal and response in the event of an incident.

2 APPROACH TO THE ASSESSMENT

2.1 PURPOSE AND SCOPE OF THE ASSESSMENT

This assessment aims to determine which impacts are likely to be significant; to scope the available data and identify any gaps that need to be filled; to determine the spatial and temporal scope and to identify the assessment methodology.

The scope of the assessment was determined through undertaking a preliminary assessment of the proposed Project against the receiving environment, obtained through a desktop review and available site-specific literature.

2.2 THE ASSESSMENT PROCESS

The ESIA methodology applied to this assessment has been developed using the International Finance Corporation (IFC) standards and models, in particular Performance Standard 1, 'Assessment and management of environmental and social risks and impacts' (International Finance Corporation, 2017) (International Finance Corporation, 2012), which establishes the importance of:

- Integrated assessment to identify the environmental and social impacts, risks, and opportunities of Projects;
- Effective community engagement through disclosure of Project -related information and consultation with local communities on matters that directly affect them and
- The client's management of environmental and social performance throughout the life of the Project

Furthermore, the Namibian Draft Procedures and Guidance for ESIA and EMP (Republic of Namibia, 2008) as well as the international and national best practice; and over 25 years of combined EIA experience, were also drawn upon in the assessment process. This impact assessment is a formal process in which the potential effects of the Project on the biophysical, social, and economic environments are identified, assessed, and reported so that the significance of potential impacts can be taken into account when considering whether to grant approval, consent or support for the proposed Project.

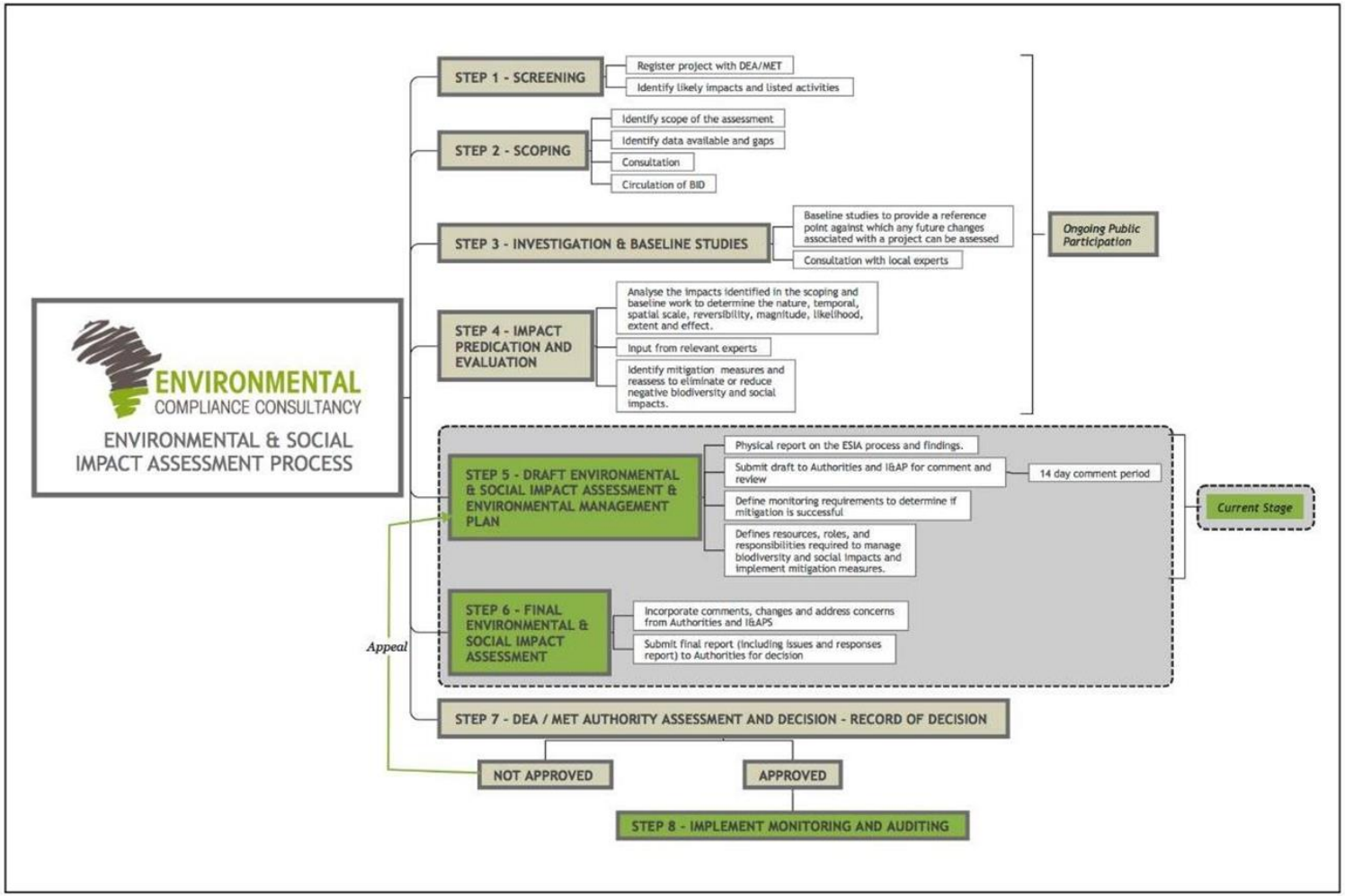


Figure 2 - ESIA Process and stages complete

2.3 SCREENING OF THE PROJECT

The first stages in the ESIA process are to register the Project with the DEA / MEFT (completed) and undertake a screening exercise to determine whether it is considered as a listed activity under the Environmental Management Act, No. 7 of 2007 and associated regulations and if significant impacts may arise from the Project. The location, scale, and duration of Project activities will be considered against the receiving environment.

It was concluded that an ESIA (e.g. scoping report and EMP) is required, as the proposed Project is considered as a listed activity and there may be potential for significant impacts to occur.

2.4 SCOPING AND THE ENVIRONMENTAL ASSESSMENT

Where an ESIA is required, the second stage is to scope the assessment. The main aims of this stage are to determine which impacts are likely to be significant (the main focus of the assessment); scope the available data and any gaps which need to be filled; determine the spatial and temporal scope; and identify the assessment methodology.

The screening phase of the Project is a preliminary analysis to determine ways in which the Project interact with the biophysical, social, and economic environment. Impacts that are identified as potentially significant during the screening and scoping phases are taken forward for further assessment in the ESIA. The details and outcome of the screening process are discussed further in sections 6 and 7.

Feedback from consultation with the client and stakeholders are also informed in this process.

The following environmental and social topics and subtopics were scoped into the assessment:

SOCIO-ECONOMIC ENVIRONMENT

Limited goods and services procurement within the local economy.

BIOPHYSICAL ENVIRONMENT

- Dust emissions
- Soil and geology
- Terrestrial ecology
- Terrestrial biodiversity (including fauna and flora)
- Groundwater (potential cumulative impact). Water management suggestions are contained in the EMP.

The following topic was scoped out of the ESIA, as no likely significant impacts are predicted as the proposed Project poses little to no change from the current baseline, therefore are not discussed further in this report.

2.5 BASELINE STUDIES

Baseline studies are undertaken as part of the scoping stage, which involves collecting all pertinent information from the current status of the receiving environment. This provides a baseline against which changes that occur as a result of the proposed Project can be measured. For the proposed Project, baseline information was obtained through a desktop study, consultation, and engagement with stakeholders (Appendix B), focussing on environmental receptors that could be affected by the proposed Project, verified through site-specific information. The baseline information is covered in Section 5.

2.6 PUBLIC CONSULTATION

Public participation and consultation are a requirement as stipulated in the Environmental Impact Assessment Regulations (Regulations 21 and 23) of the EMA, No.7 of 2007, for a project undertaking a listed activity and requires an environmental clearance certificate. Consultation is a compulsory and critical component of the ESIA process for achieving transparent decision-making and can provide many benefits. Consultation is ongoing during the ESIA process. The objectives of the public participation and consultation process are to:

- Provide information on the Project, introducing the overall project concept and planning in the form of a background information document (BID)
- Determine the relevant government, regional and local regulating authorities
- Listen to and understand community issues, record concerns and questions
- Explain the process of the ESIA and timeframes involved and establish a platform for ongoing consultation

2.6.1 IDENTIFICATION OF KEY STAKEHOLDER AND INTERESTED OR AFFECTED PARTIES

A stakeholder mapping exercise was undertaken to identify individuals or groups of stakeholders, and the method in which they will be engaged during the ESIA process.

Stakeholders were approached through direct communication (letters and phone calls), the national press, or directly by email. A summarized list of stakeholders for this project is given below:

The general public with an interest in the Project;

- Ministry of Environment, Forestry and Tourism (MEFT);
- Ministry of Mines and Energy (MME);
- Kunene Regional Council
- Opuwo Town Council
- Conservancy leaders
- Traditional Authorities

The records of the public consultation process in the form of a summary report will provide a list of interested and affected parties (I&AP's), evidence of consultation, including minutes of public meetings, advertisements in national newspapers, and a summary of the comments or questions raised by the public.

The draft scoping report and EMP was submitted to the competent authority, and all interested and affected parties for their review on the 25 August 2022. The public review period was open for a period of 7 days from the 25 August 2022 to 31 August 2022.

2.6.2 Non-Technical Summary

The Background Information Document (BID) presents a high-level description of the proposed Project; sets out the ESIA process and when and how consultation is undertaken; and provides contact details for further Project -specific inquiries to all registered I&APs. The BID was distributed to registered I&APs and the NTS can be found in Appendix B.

2.6.3 Newspapers and advertisments

Notices regarding the proposed Project and associated activities were circulated in three newspapers namely the 'Republikein, Sun, and Allgemeine Zeitung' on the 27 June 2022 and 04 July 2022 (see Appendix C). The purpose of this was to commence the consultation process by informing the public about the Project and enabling I&APs to register any comments and interest raised for the Project.

2.6.4 Site Notices

A site notice ensures neighbouring properties and stakeholders are made aware of the proposed Project. The notice was set up at the boundary of the EPL as illustrated in Appendix C.

2.6.5 Public Meeting

In terms of Section 22 of the Environmental Management Act, No. 7 of 2007 and its regulations, for the purpose of registering I&APs. An offical public meeting wasn't held however, public consultation took place on various occasions during the scoping and impact assessment phase of compiling this report**.** The first round of consultation took place in February 2022 and the second round of consultation took place in July of 2022.

Figure 3, Figure 4 and Figure 5 show the consultative process that took place with the traditional leaders, community members and Kunene Regional Town Council in Opuwo.

Figure 3 - ECC stakeholder engagement with the Kunene Regional Council

Figure 4 - ECC public consultation with community members

Figure 5 - ECC public consultation with traditional authorities

2.6.6 SUMMARY OF ISSUES RAISED

The I&APs were encouraged to provide constructive input during the consultation periods. Matters of concern raised during the rounds of consultation are presented Table 3 below.

Table 3 - Concerns and comments raised by stakeholder and I&APs during the public consultation process

Thursday 14th July 2022 Address: Oukongo Village, Ombombo Masitu Conservancy Kunene Region		
Stakeholder name and details	**Comments/Questions Received**	**Response/Clarification**
Mudge Rutjindo Member of the community	What is the purpose of erecting site notices that are in English? Community members will not understand them and will assume that their land has been taken over.	We understand the lack of English literacy, hence the public meetings were held. The aim was to fill the gap, but the site notices are still a legal requirement. In addition to this, site notices were placed in close proximity to schools (in most scenarios). The EAP have further urged elders to seek assistance from others who can speak English with translation.
Merwin Muhurukua Chairperson of Ombombo Masitu Conservancy	Since ECC is delegated to act on behalf of Proponent, what can the EAP promise the highly unemployed youth within our village?	We cannot promise anything at this early stage. One must draw a clear distinction between mining and exploration. Exploration is simply the search for mineral deposits, where the success rate it generally very low. If a discovery is made and the Proponent aims to mine, further consulting with the host communities will take place, and this is where local empowerment/employment initiatives will be rolled out. For the exploration phase,

Thursday 14th July 2022 Address: Oukongo Village, Ombombo Masitu Conservancy Kunene Region		
Stakeholder name and details	**Comments/Questions Received**	**Response/Clarification**
		we will attempt to employ unskilled labour as far as practicable locally, only bringing in skilled people (Geologists, Geophysicists, and Drillers etc).
Member of the community	Assays have been collected from our land in the past and we never received feedback. Will we be treated in the same manner again?	Exploration is quite a "cut-throat" business so people tend not to announce their results to avoid competitors applying for ground around them. The lack of feedback should not be considered malicious. The companies are simply trying to protect their interests. As an example, we have 3 licenses spread quite far apart. If we make a discovery, we would most certainly want to apply for more licenses in the area. If the positive results are shared too widely, competitors can apply for these licenses before us, causing major losses. What we do normally share with the community is information relating to water. If we drill holes that have particularly strong water, we share this with the community to ensure this gets utilised. On a side note, it is a legal requirement to submit all exploration data to the MME once a license is relinquished/abandoned, so if there is an

Thursday 14th July 2022 Address: Oukongo Village, Ombombo Masitu Conservancy Kunene Region		
Stakeholder name and details	**Comments/Questions Received**	**Response/Clarification**
		urgent need to see the data, it should be accessible through the MME in Windhoek.
Chief Ruhozu	Why are we not being offered food during this consultation meeting?	The EAP appreciates the great turnout and contributions from the meetings but providing food to members of the public during meetings is unfortunately not in line with section 21 of the EMA regulation. Offering food could further lead to allegations that the EAP is bribing community members.
Member of the community	Who will be there to monitor the Proponent's exploration/ rehabilitation operations to ensure they are in compliance with the EMP?	The proponent is required to submit 6-monthly environmental reports to the MME to demonstrate compliance. It is in the proponent's interest to adhere to the EMP, because if there are deviations, MME could refuse future license applications.

The public is further being provided an opportunity to send any comments on the draft scoping report and the EMP to be included and addressed, where applicable, in the final documentation.

2.7 DRAFT EIA AND EMP

This report and EMP for the Project 's environmental clearance includes an assessment of the biophysical and social environment, which satisfies the requirements of Step 5 (Figure 3).
The EIA report documents the findings of the assessment process, provides stakeholders with the opportunity to comment and continue to engage in consultation and forms part of the environmental clearance application. The EMP provides measures to manage the environmental and social impacts of the proposed Project and outlines specific roles and responsibilities to fulfil the plan.

This EIA report focuses on the significant impacts that may arise from the proposed Project as described in Step 4 (Figure 3). These impacts are discussed in Chapter 7.

2.8 FINAL EIA AND EMP

The final EIA report and associated appendices will be available to all stakeholders on the ECC website www.eccenvironmental.com and MEFT portal. All I&APs will be informed via email.

The EIA report and appendices are formally submitted to the Office of the Environmental Commissioner, DEA department as part of the application for an environmental clearance certificate.

2.9 AUTHORITY ASSESSMENT AND DECISION MAKING

The Environmental Commissioner in consultation with other relevant authorities will assess if the findings of the EIA presented in the EIA report is acceptable. If deemed acceptable, the Environmental Commissioner will revert back to the Proponent with a record of decision and any recommendations.

2.10 MONITORING AND AUDITING

In addition to the EMP being implemented by the Proponent, a monitoring strategy and audit procedure will be determined by the Proponent and competent authority. This will ensure key environmental receptors are monitored over time to establish any significant changes from the baseline environmental conditions caused by Project activities.

3 REVIEW OF THE LEGAL ENVIRONMENT

As stated in Section 1, an environmental clearance certificate is required for any activity listed in the Government Notice No. 29 of 2012 of the EMA 2007. The Project area is located outside of any protected areas or heritage listed areas.

A thorough review of relevant legislation has been conducted for the proposed Project. Table 4 below identifies relevant legal requirements specific to the Project. Table 5 provides the national policies and plan. Table 6 specifies permits relevant for the Project. This chapter outlines the regulatory framework applicable to the proposed Project.

3.1 NATIONAL REGULATORY FRAMEWORK

Table 4 - Details of the regulatory framework as it applied to the proposed Project

National Regulatory Regime	Summary	Applicability to the Project
Constitution of the Republic of Namibia (1990)	The constitution defines the country's position in relation to sustainable development and environmental management. The constitution refers that the State shall actively promote and maintain the welfare of the people by adopting policies aimed at the following: "Maintenance of ecosystems, essential ecological processes and biological diversity of Namibia, and the utilisation of living, natural resources on a sustainable basis for the benefit of all Namibians, both present, and future."	The Proponent is committed to the sustainable use of the environment, and has aligned its corporate mission, vision, and objectives within the ambit of the Constitution of the Republic of Namibia (1990).
Minerals (Prospecting and Mining) Act No. 33 of 1992	The Act provides for the granting of various licences related to mining and exploration. Section 50 (i) requires: "An environmental impact assessment indicating the extent of any pollution of the environment before any prospecting operations or mining operations are being carried out, and an estimate of any pollution, if any, likely to be caused by such prospecting operations or mining operations." The Act sets out the requirements associated with licence terms and conditions, such that the holder of a mineral licence shall comply with.	The proponent is still awaiting the Exclusive Prospecting Licence EPL 8572 preparedness to grant from MME which when issued to the Proponent is valid for a period of 3 years. The proposed prospecting activity on EPL 8572 requires an EIA to be carried out, as it triggers listed activities as defined in Government notice 29 in the Environmental Management Act 2007. Prospecting activities in EPL 8572 shall not commence until an Environmental Clearance Certificate has been issued in accordance with the provisions of the Environmental Management Act 2007.

National Regulatory Regime	Summary	Applicability to the Project
	The Act also contains relevant provisions for pollution control related to mining activities and land access agreements and provides provisions that mineral licence holders are liable for any damage to land, water, plant, or animal life, caused by spilling or pollution, and must take all such steps as may be necessary to remedy such spilling, pollution, loss, or damage, at its own costs.	The Project shall be compliant with Section 76 of the Act with regard to records, maps, plans and financial statements, information, reports and returns submitted.
Environmental Management Act, 2007 (Act No. 7 of 2007) and its regulations (2012), including the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2011)	The Act aims to promote sustainable management of the environment and the use of natural resources. The Act requires certain activities to obtain an environmental clearance certificate prior to Project development. The Act states that an EIA should be undertaken and submitted as part of the environmental clearance certificate application process. The MEFT is responsible for the protection and management of Namibia's natural environment. The Department of Environmental Affairs, under the MEFT, is responsible for the administration of the EIA process.	This environmental scoping report documents the findings of the scoping phase of the environmental assessment undertaken for the proposed Project. The process will be undertaken in line with the requirements under the Act and its regulations. Prospecting activities on EPL 8572 shall not commence until an Environmental Clearance Certificate has been issued in accordance with the provisions of the Environmental Management Act 2007.
Hazardous Substances Ordinance, No. 14 of 1974	This Ordinance provides for the control of toxic substances and can be applied in conjunction with the Atmospheric Pollution Prevention Ordinance, No. 11 of 1976. This applies to the manufacture, sale, use, disposal, and dumping of hazardous substances, as well as their import and export.	The planned Project will involve the handling and storage of hazardous substances such as fuels, reagents, and industrial chemicals.

National Regulatory Regime	Summary	Applicability to the Project
Labour Act, No. 11 of 2007	The Labour Act, No. 11 of 2007 (Regulations relating to the Occupational Health & Safety provisions of Employees at Work, promulgated in terms of Section 101 of the Labour Act, No. 6 of 1992 - GN156, GG 1617 of 1 August 1997)	The Project shall adhere to all labour provisions and guidelines, as enshrined in the Labour Act. The Project shall also develop and implement a comprehensive occupational health and safety plan to ensure adequate protection for its personnel throughout the Project lifecycle.
Petroleum Products and Energy Amendment Act, No.3 of 2000	Provides provision for the Minister to regulate the cleaning up of petroleum product spills, leaks and related incidents. The Proponent is required to carry all costs associated with such incidents.	The planned Project will involve the handling and storage of hazardous substances such as fuels, reagents, and industrial chemicals.

3.2 NATIONAL POLICIES AND PLANS

Table 5 - National policies and plans applicable to the proposed Project

Policy or plan	Description	Relevance to the r Project
Vision 2030	Vision 2030 sets out the nation's development targets and strategies to achieve its national objectives. Vision 2030 states that the overall goal is to improve the quality of life of the Namibian people aligned with the developed world.	The proposed Project shall aim to meet the objectives of Vision 2030 and shall contribute to the overall development of the country through continued employment opportunities and ongoing contributions to the gross domestic product (GDP).
Fifth National Development Plan (NDP5)	The NDP5 is the fifth in a series of seven five-year national development plans that outline the objectives and aspirations of Namibia's long-term vision. The NDP5 pillars are economic progression, social transformation, environmental sustainability, and good governance.	The planned Project supports meeting the objectives of the NDP5 through creating opportunities for continued employment.
The Harambee Prosperity Plan II (2021 – 2025)	Second Pillar: Economic advancement – ensuring increasing productivity of priority key sectors (including mining) and the development of additional engines of growth, such as new employment opportunities.	The Project will contribute to the continued advancement of the mining industry and create an additional employment generation engine within the regional and national landscape.
Namibia's Green Plan, 1992	Namibian has developed a 12-point plan for integrated sustainable environmental management to ensure a safe and healthy environment and to maintain a viable economy. Clause 2 (f) makes specific mention to guidelines related to Mining and Sustainable Development.	Guidelines as best practise to be adhered too during operational activities.
Pollution Control and Waste Management Bill (draft), 1999	This draft Act aims to promote sustainable development by regulating the discharge of	

Policy or plan	Description	Relevance to the r Project
	pollutants into the air, land and sea. Additionally, to ensure Namibia has an integrated waste management approach and complies with international legislation.	
Minerals Policy	The Minerals Policy was adopted in 2002 and sets guiding principles and direction for the development of the Namibian mining sector, while communicating the values of the Namibian people. The policy strives to create an enabling environment for local and foreign investments in the mining sector and seeks to maximise the benefits for the Namibian people from the mining sector, while encouraging local participation. The objectives of the Minerals Policy are in line with the objectives of the Fifth National Development Plan that include reduction of poverty, employment creation, and economic empowerment in Namibia.	The planned Project conforms to the Policy, which has been considered through the ESIA process and the production of this report. The Proponent intends to continue to support local spending and procurement. The Project will comply with the general guidelines of the Policy through the adoption of various legal mechanisms to manage all aspects of the environment effectively and sustainably from the start. The ESIA is one such mechanism to ensure environmental integrity throughout the planned Project's lifecycle.

Table 6 - Specific permits and licence requirements for the proposed Project

Permit or licence	Act or Regulation	Related activities requiring a permit	Relevant Authority
Environmental clearance certificate	Environmental Management Act, No 7 of 2007	Required for all listed activities shown in Table 2. Requires issuance of Environmental Clearance Certificate by the Environmental Commissioner.	Ministry of Environment, Forestry and Tourism (MEFT)
Exclusive Prospecting Licence	Section 90 (2) (A) of the Minerals Act, No.33 of 1992	Written permission from the mining commissioner in the form of an Exclusive Prospecting Licence (EPL 8572) has been issued to date.	Ministry of Mines and Energy (MME)

4 PROJECT DESCRIPTION

4.1 NEED FOR THE PROJECT

The mining sector in Namibia significantly contributes to the country's Gross Domestic Product (GDP), government tax receipts and export revenues. For this reason, exploration activities are encouraged in Namibia and the vision of the Minerals Policy being to "further attract investment and enable the private sector to take the lead in exploration, mining, mineral beneficiation and marketing" supports mineral exploration and development.

The proposed Project is in line with this vision and has the potential to create employment in local communities in the Kunene Region. In the event that exploration activities are successful, and a resource can be defined, with commercially viable mineral concentrations, exploration operations can result in socio-economic development in the area.

4.2 ALTERNATIVE CONSIDERED

In terms of the Environmental Management Act, No. 7 of 2007 and its regulations, alternatives considered should be analysed and presented in the scoping assessment and EIA report. This requirement ensures that during the design evolution and decision-making process, potential environmental impacts, costs, and technical feasibility have been considered, which leads to the best option(s) being identified.

Exploration activities range from extremely low impact exploration such as remote sensing from satellites and electromagnetic (AMT & IT) surveys to detect any mineralization in the area to more invasive methods such as RC and diamond drilling. However, drilling is reserved for advanced targets where mineralization has been determined to be present. The methods used shall be determined, based on the exploration programme, which is further designed once more information and data is obtained. At this stage of the Project, the exploration activities are yet to be finalised and therefore a range of options remain. Once the exploration programme is further defined, the most suitable options and methods shall be identified to ensure the impacts on the environment and society are minimised.

4.2.1 NO-GO ALTERNATIVES

Should exploration activities within EPL 8572 not take place, the anticipated environmental impacts from exploration activities would not occur, however, the social and economic benefits associated with the Project would also not materialize.

There would not be an opportunity to define resources within the Project area, which would be a missed opportunity for geological mapping and data collection that typically adds to regional

knowledge of Namibia's mineral wealth and, if found to be viable for mining, would benefit the Namibian economy.

Even in the event that the Proponent is not able to declare a resource that is economically viable, the data generated is submitted to the MME allowing subsequent tenure holders to have an increased chance of success over the same property.

4.3 EXPLORATION METHODOLOGY

All geological and geophysical work will be conducted by contractors. The schedule of activities is presented in **Table *7***.

Table 7 – Preliminary Exploration schedule

Phase	Date	Activity Description
Desktop Studies	August 2022	Historical data compilation and field verification
Geological Mapping	October 2022	Detailed Geological and Structural Mapping
Geochemical Sampling	October 2022	Soil and Rock Chip Geochem
Ground Geophysics	March 2023	Follow up of any structural/geochemical targets using appropriate geophysics
Data Integration and Interpretation	May 2023	Target generation and prioritization to determine whether drill targets are present
Drill Testing	July 2023	Drill testing using RC or DD, depending on depth and priority of targets
Down-Hole Geophysics	September 2023	Down hole electromagnetics, if any conductors are intersected

Please note the above schedule is highly conceptual and largely outcomes-based and subject to change.

The exploration activities on EPL 8572 will include the following: geological mapping, geochemical surveys, remote sensing, geophysical surveys (airborne and ground-based) and potentially diamond and RC drilling. Details of these methods are described below. Ground-based exploration techniques are inevitable in the search for base, rare and precious metals. Data obtained by remote-sensing data are also used to select target areas.

Remote and geophysical surveys shall be undertaken to measure the chargeability, conductivity, and magnetic susceptibility of the rocks. The geophysical surveys will be done on foot by laying out medium diameter cables on the ground. These cables will be supplied with power which will,

in turn, provide a response from underground, which can be measured on the surface. This will be done in order to identify any subsurface conductors and could point towards mineralization. Diamond drilling and possible RC drilling may occur, and the number of holes and aerial extent will be determined by the geochemical and geophysical anomalies obtained

Pitting/trenching does not form part of the proponent's typical exploration activities; therefore, no pitting or trenching is planned as part of the exploration activities, but this should not rule out the option of conducting such activities if it is required.

Existing tracks shall be used as far as reasonably practicable. If new tracks are required, they will be developed by hand or by use of a bulldozer, terrain dependent. Vegetation clearing will be limited to clearing for access tracks and site camps. Should additional areas be cleared for exploration activities the Forest Act, No. 12 of 2001 and its regulations will be complied with (the relevant forestry permits will be applied for if required). Any established or large trees or specially protected plant species shall not be removed, and access tracks will be routed to avoid these wherever possible and permits will be obtained as necessary.

4.3.1 EXPLORATION SCHEDULE

Field exploration activities, using techniques discussed above, are anticipated to be carried out over the license validity period. Remote sensing studies and planning phases for the prospecting programme will require approximately 3 months. Geochemical sampling will be undertaken concurrently with geological mapping for approximately another 3 months. Geophysical surveys will then be carried out over a period of about 2 months. The above schedules are conceptual, and interpretation of the generated data is required, which may cause duration of limited field activity, while desktop interpretation is taking place.

Drilling is typically reserved for advanced targets where the proponent has a good idea that mineralisation is present. If mineralisation is discovered, it will initially be tested through reverse circulation (RC) drilling and if these results are further positive, diamond drilling will be utilised. The duration of drilling programs is variable, and usually depends on the information that is gained from drilling.

Applications for the environmental clearance certificate, along with all required permits will be submitted during this period should a renewal of the EPL be required.

4.3.2 EQUIPMENT AND MATERIALS

During the exploration phase, three to-four light-duty vehicles (LDVs) will be used to transport workers to, from and around the site. Trucks may be used if the proponent needs to transport large volumes of equipment.

For the remote sensing and electromagnetic survey, the following equipment will be used to carry out the surveys 3-4km of medium diameter cables, a large generator, a magnetometer or other sensor and one to two LDVs to transport people and equipment. During airborne geophysics the proponent is most likely to use the nearest airport base and the surveys will be conducted using fixed-wing aircraft, helicopters or drones.

Geochemical sampling or soil sampling will be collected in bulk samples comprises the collection of a small rock, soil or sediment samples in the field along a designed grid, and the analysis of the samples to identify geochemical anomalies. These surveys are typically conducted using shovels, picks, hammers, plastic bags, etc. While if required a small subsample will be dispatched to a laboratory for further analysis.

Drilling equipment, diesel fuel and consumables shall be brought to the exploration site to support exploration activities when/if needed. For advanced exploration, a drill rig (track-mounted or trailer-mounted) will be brought to site for RC or diamond drilling, along with a water truck and supporting equipment (rods truck, water and fuel bowsers, and RC compressor) for use during drilling. A small subsample of the rock chips generated during RC drilling will be taken for analysis, while the rest are disposed of down the hole. For RC drilling, the rock is crushed down the hole using a percussive drill bit and the crushed rock is brought to the surface using compressed air, while with diamond drilling, a diamond impregnated drill bit is used to cut a cylinder of the rock out, which allows for more detailed interpretation.

4.3.3 POWER SUPPLY

The individual contractors will be responsible to supply their own energy needs throughout the duration of their stay within the field camps one option may be to use small-scale generators.

4.3.4 WATER SUPPLY

Water will not be required during early-stage exploration. If the Project progresses to the advanced exploration stage, the Proponent will source water from either groundwater supplies (if available) or will truck water in from the approved water source.

4.3.5 WORKERS AND ACCOMMODATION

Technical experts will either be from Namibia or South Africa. While semi-skilled or unskilled labour will be sourced locally if and where possible. Initial teams will comprise of less than ten workers. However, if the proponent is successful in identifying drill targets the size may increase beyond ten persons. The workers will be accommodated on site, erecting camp sites at the various exploration stations with the EPL. Contractor's camp infrastructure includes tents and chemical toilets, which would be set up on site temporarily, or if there is a village nearby, the proponent will make arrangements to accommodate workers in the nearby village.

4.3.6 WASTE MANAGEMENT

The varying waste categories expected to be produced by the project are general household waste, plastics, chemical containers and hazardous waste. All household/safe waste will be disposed of at the local landfill site in Opuwo, while hazardous waste will be transported to appropriate sites for safe disposal.

4.3.7 WASTEWATER EFFLUENT

Early-stage exploration does not require the discharge of wastewater. If a significant discovery is made, diamond drilling will be involved, which does generate wastewater. This water is circulated down each hole while adding environmentally friendly drill muds. Once drilling is completed the muds and drill cuttings are separated from the water and the water circulated down hole.

4.3.8 REHABILITATION

Once exploration activities are completed the areas shall be rehabilitated to a condition as close to the original state as far as possible. Rehabilitation shall be determined during the exploration programme and shall be agreed with the landowners and authorities as per legislation (discussed in Section 3). Before and after photographs will be used to monitor rehabilitation success.

5 ENVIRONMENT AND SOCIAL BASELINE

A detailed environmental and socio-economic baseline assessment of the Project is provided in this report. Baseline studies aim to assess possible Project impacts (positive, negative and cumulative), thus ensuring input into the Project designs, which avoid, reduce or mitigate the potentially adverse environmental and social risks. This section provides an overview of the existing biophysical environment through the analysis of the available baseline data regarding the receiving environment. Desktop studies, followed by site verification on the national database are undertaken as part of the scoping process to get information about the current status of the receiving environment. This provides a baseline where changes that occur as a result of the proposed Project can be measured.

5.1 LAND USE

EPL 8572 is situated in the north-western part of Namibia in the Kunene Region where it falls over two communal conservancies namely Ombombo and Otjindjerese. Figure 6 outlines the EPL area with the surrounding communal conservancies.

Ombombo conservancy has been registered since October 2014 and covers an area of 1487 km ^{2} and has an approximate population of 2962 individuals. Otjindjerese conservancy covers a smaller area of 731 km ^{2} with a population of 2067 individuals and has been registered since July 2018.

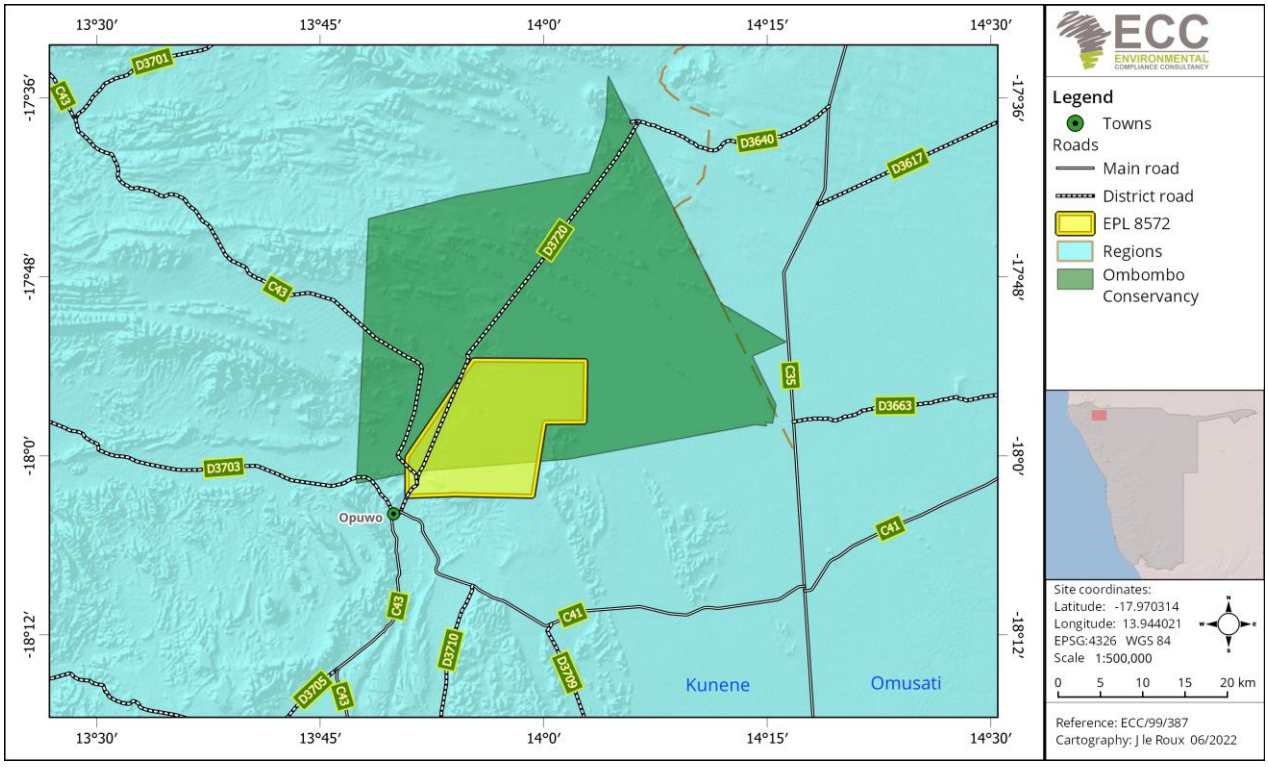


Figure 6 - Surrounding communal conservancy

5.2 CLIMATE

The proposed EPL is situated northeast of Opuwo in the Kunene Region, Namibia. The area where the EPL 8572 is located has a climate that is characterised by warm summers and cool winters with an average annual temperature of between 21˚C to 22˚C, mean maximum temperatures ranging between 25˚C and 34˚C and mean minimum temperatures ranging between 8˚C to 19˚C. The hottest months of the year are between September and December and the coolest months are in June and July (Bubenzer, 2002 & meteoblue, 2022).

The most humid months have a Relative Humidity (RH), averaging approximately 80% RH, and the driest months have an RH of approximately 10%. The average rainfall in this area during the year is between 300 to 350 mm and rainfall events are limited to the summer months, mainly between November and March. Potential evaporation is between 3000 and 3200 mm per year (Bubenzer, 2002) in Figure 7.

Climate and weather data from meteoblue (2022) for the site has been used to give the most accurate data for the EPL area. This area has wind speeds between 0 and > 38 km/h, where the months of May to August are known to have the strongest winds. Wind can occur at any time of the day and the most predominant wind directions for this area are S, SSW, SW and ENE (Figure 8) (meteoblue, 2022).

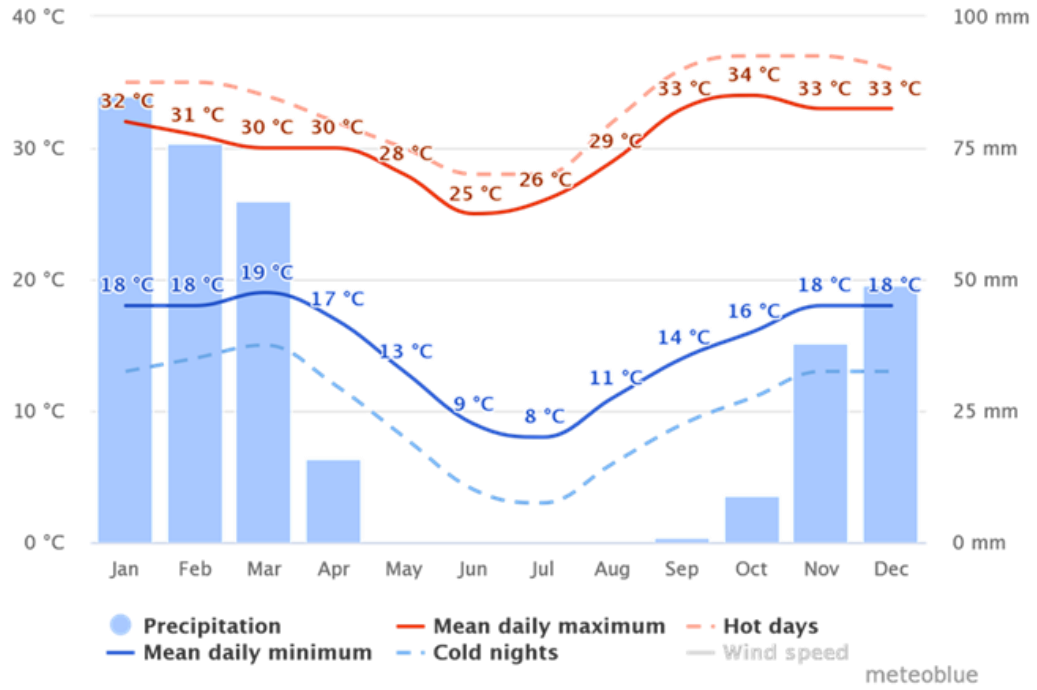


Figure 7 - Yearly expected weather conditions

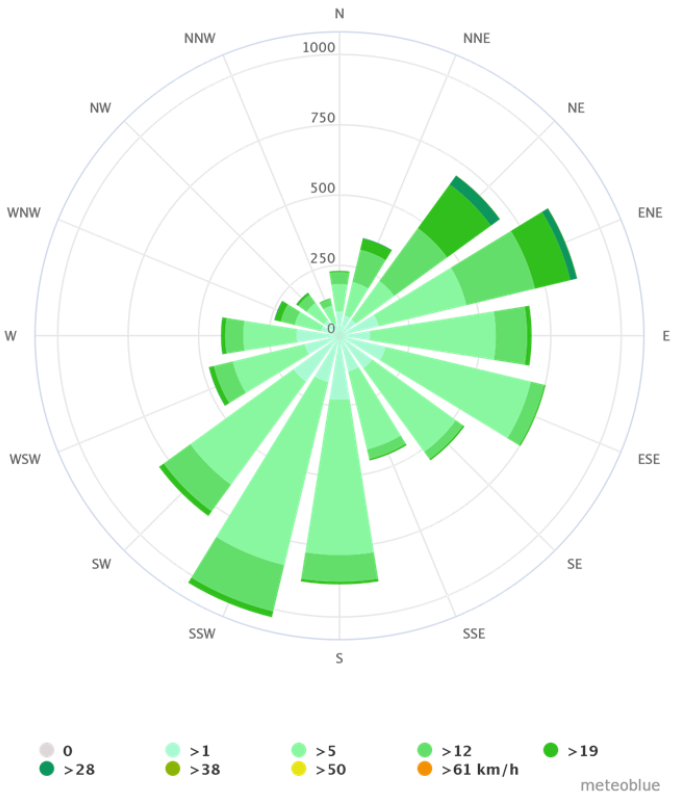


Figure 8 - Average wind directions for this area

5.3 SOIL, GEOLOGY AND TOPOGRAPHY

The regional geology of this area consists mainly of the Kalahari and Namib Sands Group, the Huab Basin Group (western side of the EPL) and small sections of the Otavi Group to the eastern, north-and southwestern sides of the EPL. The main rock types are limestones, dolomites, sandstones, shales, sands and calcrete. The Otavi group is part of the Damara Supergroup and Gariep Complex, the Huab basin forms part of the Karoo Supergroup and the Kalahari and Namib Sands Group form part of the Kalahari Group complex (Bubenzer, 2002) shown in Figure 9.

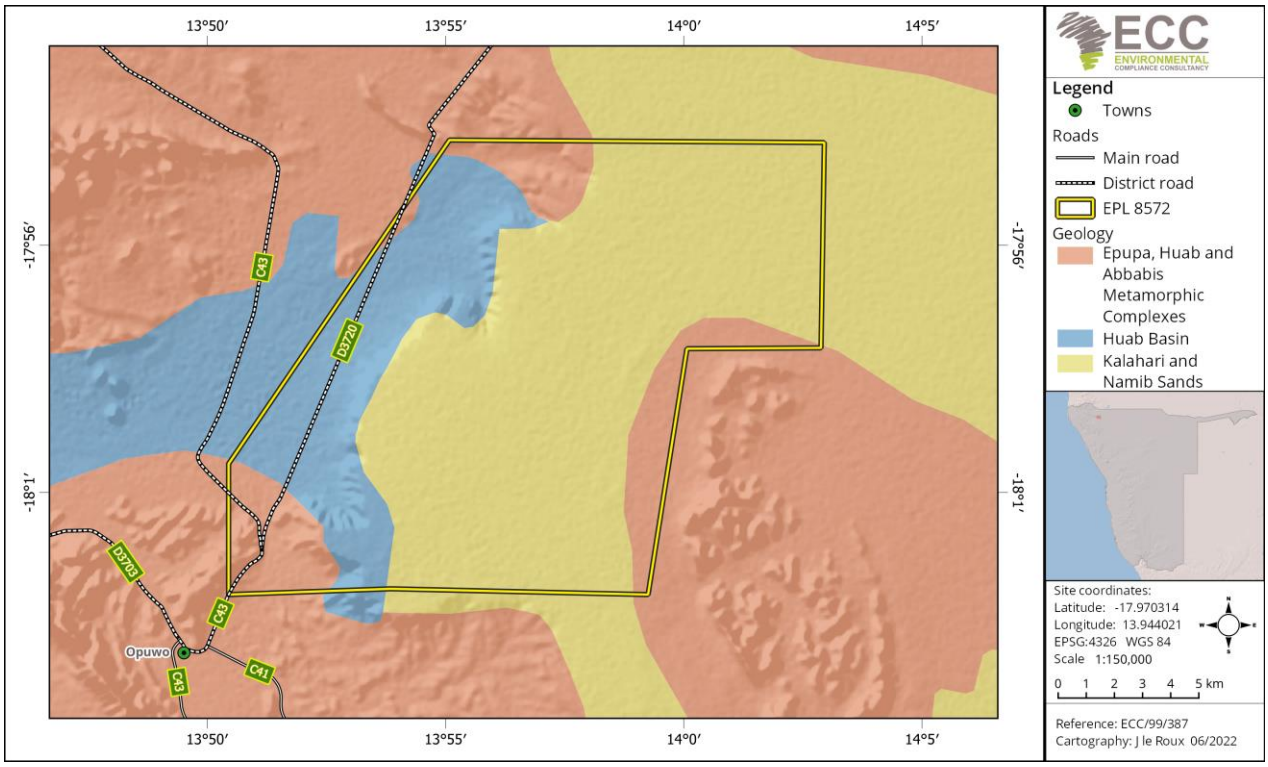


Figure 9 - Geology of the area

The topography of the Project site is relatively flat, with steeper slopes/valleys to the western side of the EPL. A plateau makes up the largest part of the EPL, where it suddenly drops in elevation to > 100 meters in the western parts of the EPL. There are a few drainage lines to the western side of the EPL. Elevation decreases from the southern side of the EPL towards the north-eastern side of the EPL on the plateau (Figure 10), varying between about 1344 m and about 1283 meters above sea level (masl), but elevation to the western side of the EPL varies between just below 1100 to just below 1200 masl.

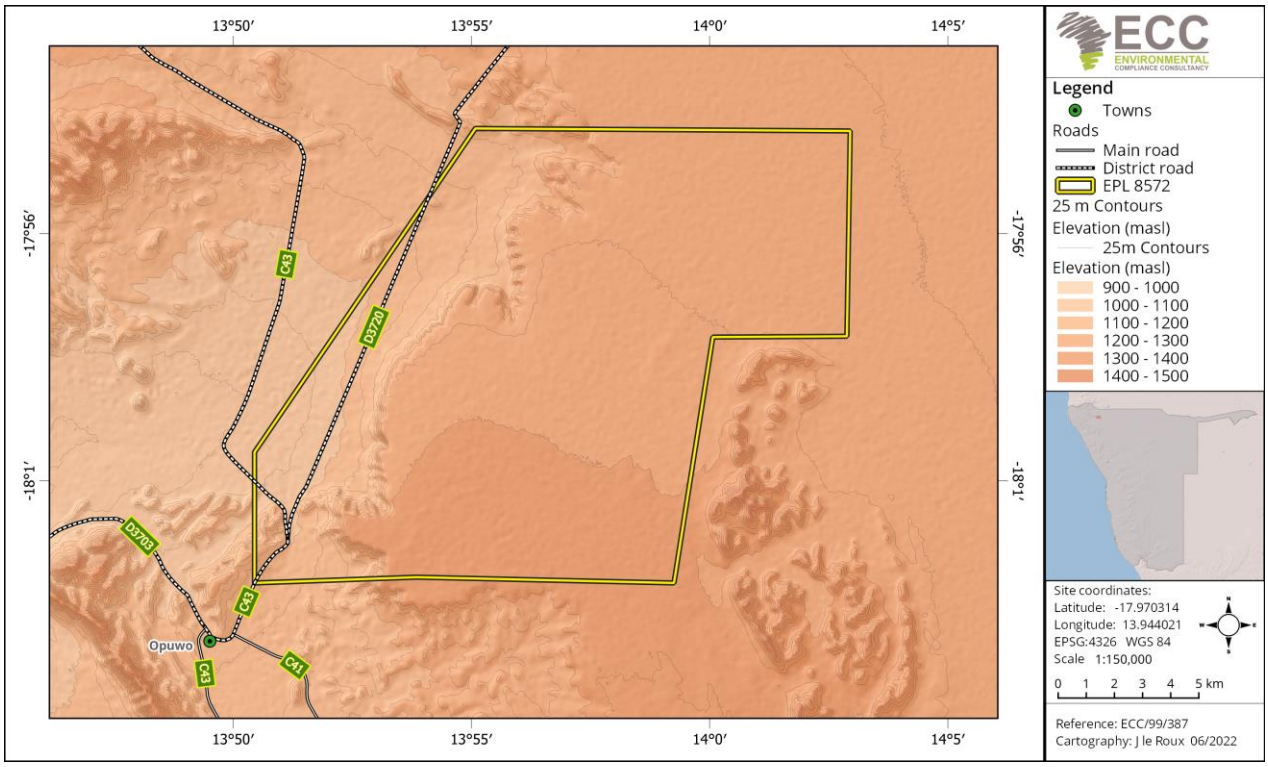


Figure 10 - Elevation of the area

The EPL area is largely covered by ferralic Arenosols, Petric Calcisols (western side) and smaller sections of rock outcrops, lithic Leptosols and eutric Regosols (Figure 11) (Bubenzer, 2002). Namibian soils vary a great deal, variations occur on a broad scale but there is even a great deal of variability at a local level.

The first part of the soil name provides information on the properties of the soil, namely: ferralic represents soils that contain high contents of combined oxides of aluminium and iron, whereas Petric represents soils with a solid layer at a shallow depth and this soil tends to remain hard even when wet. The second name reflects the conditions and processes which have led to the formation of the soils (Mendelsohn et al., 2002). Arenosols refer to soils formed from “wind-blown sand” and this usually extends to depths of at least one meter and 70% of the soil is usually sand. Calcisols are usually present in depressions or other low-lying areas and also “typically contain accumulations of calcium carbonate” (often as calcrete). Calcrete generally forms below the surface but is on the surface in a soft powdery form. These soils have the potential to be fertile but might lack zinc and iron to high calcium levels (Mendelsohn et al., 2002).

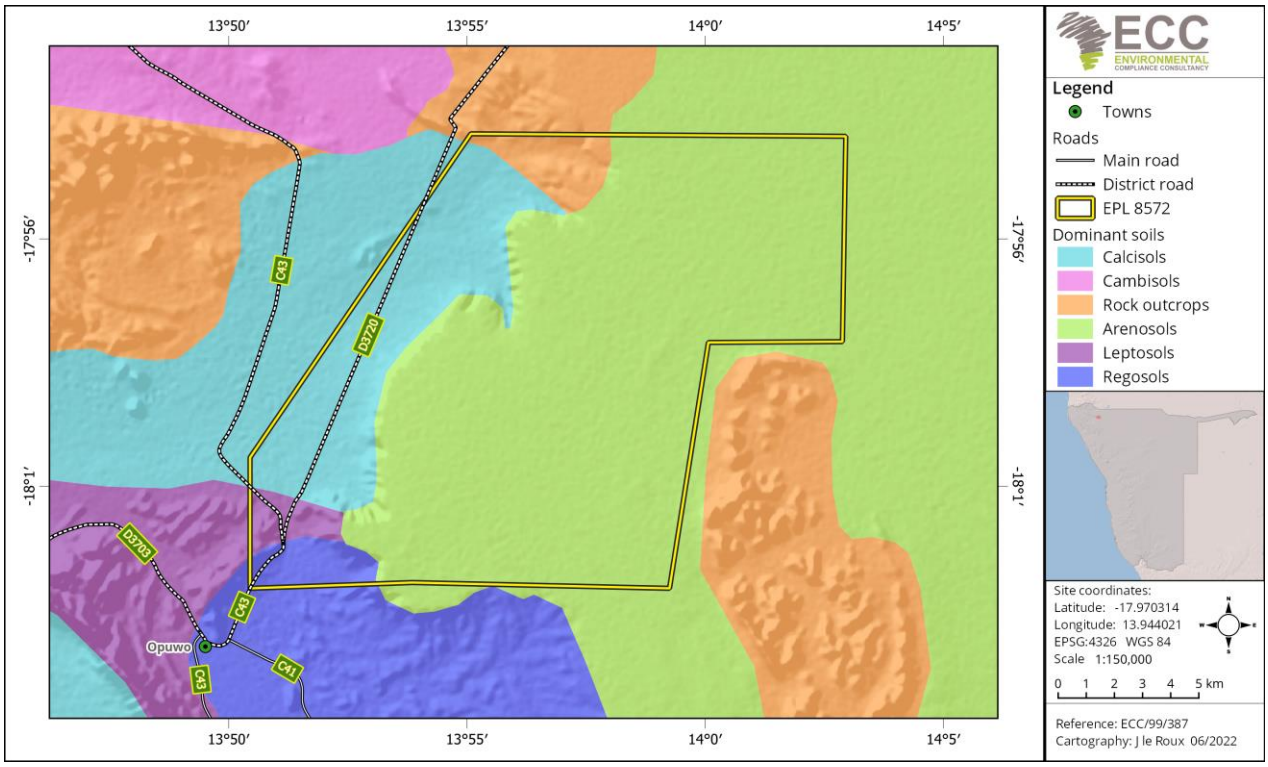


Figure 11 - Soil characteristics of the area

5.4 HYDROLOGY

According to the Namibian Monitoring Information System & Hydrological Map of Namibia (https://na-mis.com/), the site falls over a Fractured, fissured or karstified aquifer with moderate groundwater potential, as well as over small sections with high water potential and small section porous aquifer with moderate potential (river areas) shown in Figure 12. The groundwater vulnerability in this area is considered to be high and smaller sections very high and very low (Porous aquifer) and groundwater recharge within this area is considered to be low (>0.5 to 1 % of the total average rainfall). Groundwater in this area is generally of good to excellent quality (Group A and B), but there are some areas around the site (closer to Opuwo and to the southeast of Opuwo), where water quality is poor and not suitable for human consumption (Group D).

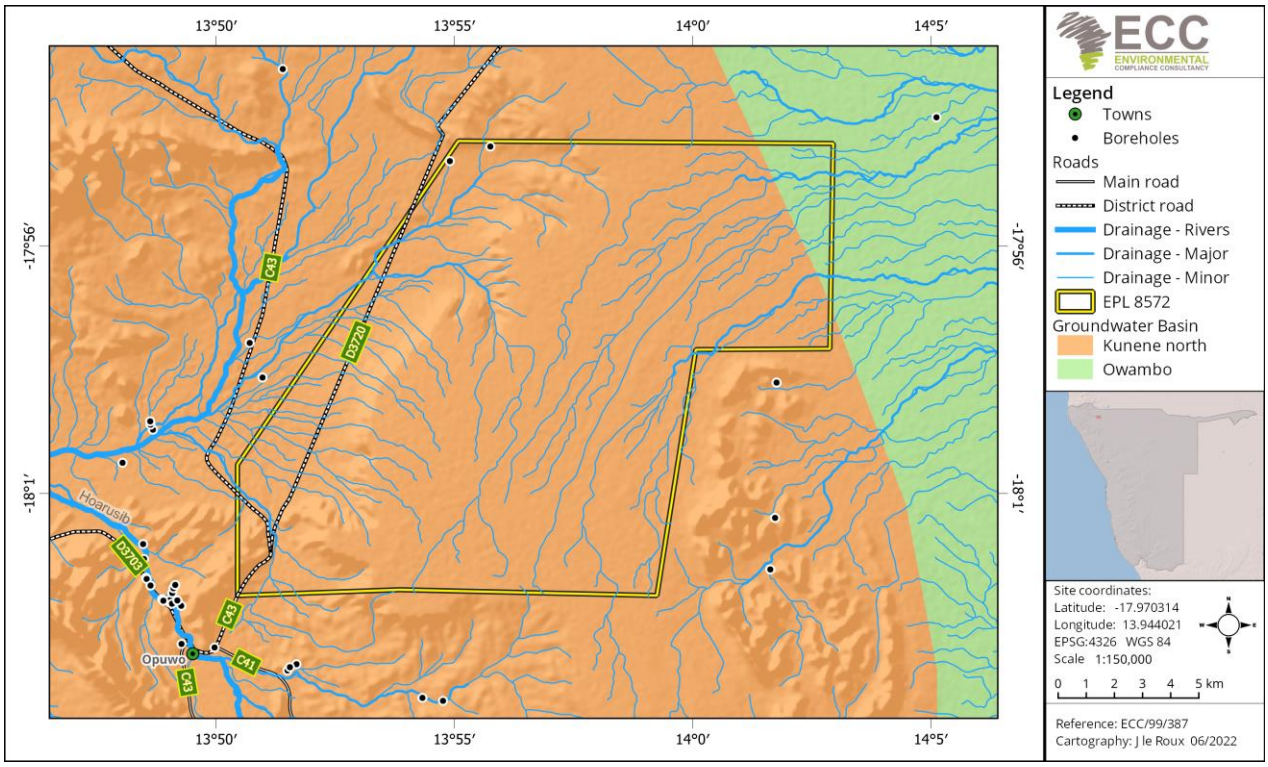


Figure 12 - Hydrology of the area

5.5 BIODIVERSITY BASELINE

5.5.1 FLORA

Vegetation in Namibia is strongly influenced by rainfall. The proposed Project site is situated within the western highlands and Western Kalahari vegetation cover. The plant diversity and tallest trees are most lush in the north-eastern parts of the country and contrast sparser and shorter to the west and south of the country. This gradient is not simple as factors such as soil types, landscape and human impacts may also influence the vegetation. The plant diversity (100 to up to 500 species) for this area is low to high (near Opuwo), with very low to moderate endemism (1 to 25 species) and the dominant vegetation structure for the EPL is woodland, vegetation type is western highlands and western Kalahari and the EPL falls within the Savanna biome (Mendelsohn et al. 2002) shown in Figure 13.

In this part of Namibia the following tree and shrub species are either protected under national legislation, endemic, near-endemic or listed in the CITES appendices: Aloe littoralis (Nature Conservation Ordinance and CITES II), Ficus Cordata (Forestry protected), Ficus sycomorus (Forestry protected), Obetia carruthersiana (near-endemic), Boscia albitrunca (Forestry protected), Cadaba schroeppelii (near-endemic), Maerua schinzii (Forestry protected), Moringa ovalifolia (Forestry protected and near-endemic), Albizia anthelmintica (Forestry protected), Vachellia erioloba (Forestry protected), Faidherbia albida (Forestry protected), Entandrophragma spicatum

(Forestry protected), Colophospermum mopane (Forestry protected), Peltophorum africanum, just to name a few, the rest are listed in Appendix G in the NBRI species list.

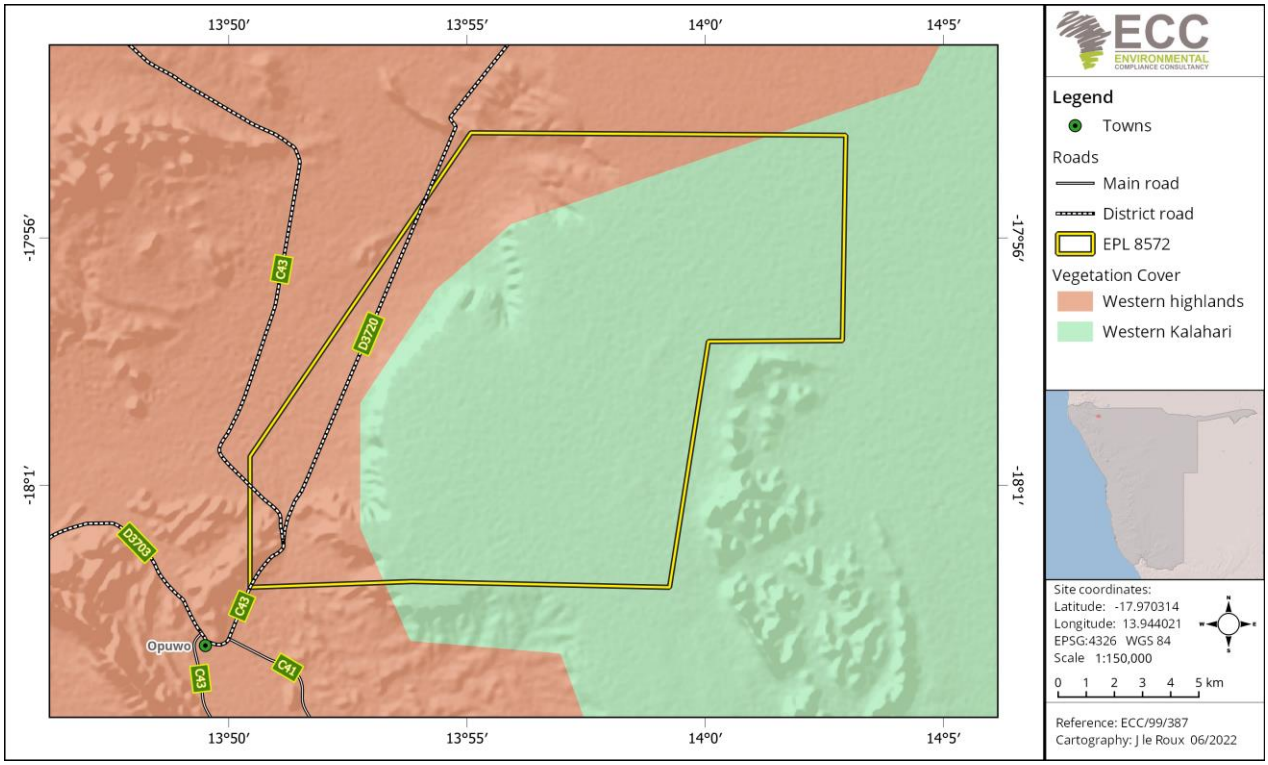


Figure 13 - Vegetation cover of the area

5.5.2 FAUNA

The overall terrestrial diversity for this area is low to moderate compared to other parts of the country. The area within and surrounding the EPL boundary has a low to moderate bird diversity status of between 111 and 140 species, with high bird endemism (between 6 to 7 species) and represents an area with a moderate to high mammal diversity of between 76 to 90 species (5 to 8 of these species are endemic). Up to four larger carnivore species have been recorded in the general area (Bubenzer, 2002, IUCN, 2021, Mendelsohn et al., 2002, Oberprieler and Cillié, 2008 & Stuart and Stuart, 2015).

Furthermore, the reptile diversity within this area is moderate to high with between 61 and 70 species, of which 13 to 20 species are endemic (moderate to high). The number of observed lizard species for this area is between 28 and 35 species of which 6 to 11 of the species are endemic and the different snakes recorded are between 30 to 34 species (9 to >10 endemic species).

This area has a low to moderate frog diversity of between 8 to 15 species. Then there is also a low to moderate scorpion diversity (10 to 13 species) around which 3 to 4 species are endemic (Bubenzer, 2002 & Mendelsohn et al., 2002).

Various protected or threatened mammal species may occur in this area or might pass through on occasion of which one is classified as near threatened (Brown Hyena, Plains Zebra) and four are classified as vulnerable (Cheetah, Leopard, Pangolin, Hartmann's Mountain Zebra) according to the IUCN red list of threatened species (IUCN 2022).

Furthermore, all tortoise species, rock monitors and pythons (dwarf and rock pythons), that might potentially be encountered within the EPL boundaries are protected under the Nature Conservation Ordinance No. 4 of 1975. Then various species are also listed in the CITES Appendices, such as Cheetahs, Leopards, Pangolins, Elephants etc.

Most bird species in Namibia fall under Schedule 4: Protected Game within the Namibian Conservation Ordinance No. 4 of 1975, except for the following excluded species: Weavers, Sparrows, Mousebirds, Redheaded Quela, Bulbul, and Pied crow as well as 19 huntable game bird species identified in Schedule 6 of the Nature Conservation Ordinance (Nature Conservation Ordinance No. 4 of 1975).

Several migratory bird species may only pass-through Namibia, thus some of the species might be rare to encounter during the year but could potentially be found within the EPL boundaries. Surface water on or near the proposed site (rainy season) might attract various water birds (either resident or migratory).

5.6 SOCIAL AND SOCIO-ECONOMIC BASELINE

The urban population pyramid for Namibia shows a very clear dominance of the age group 20 to 35 as well as for infants (0 to 4 years of age) (Figure 14). As the majority of people in the Otjozondjupa Region are living in urban areas. The majority of Namibia's population is young, as most of them are within the child-bearing age range (NSA 2014).

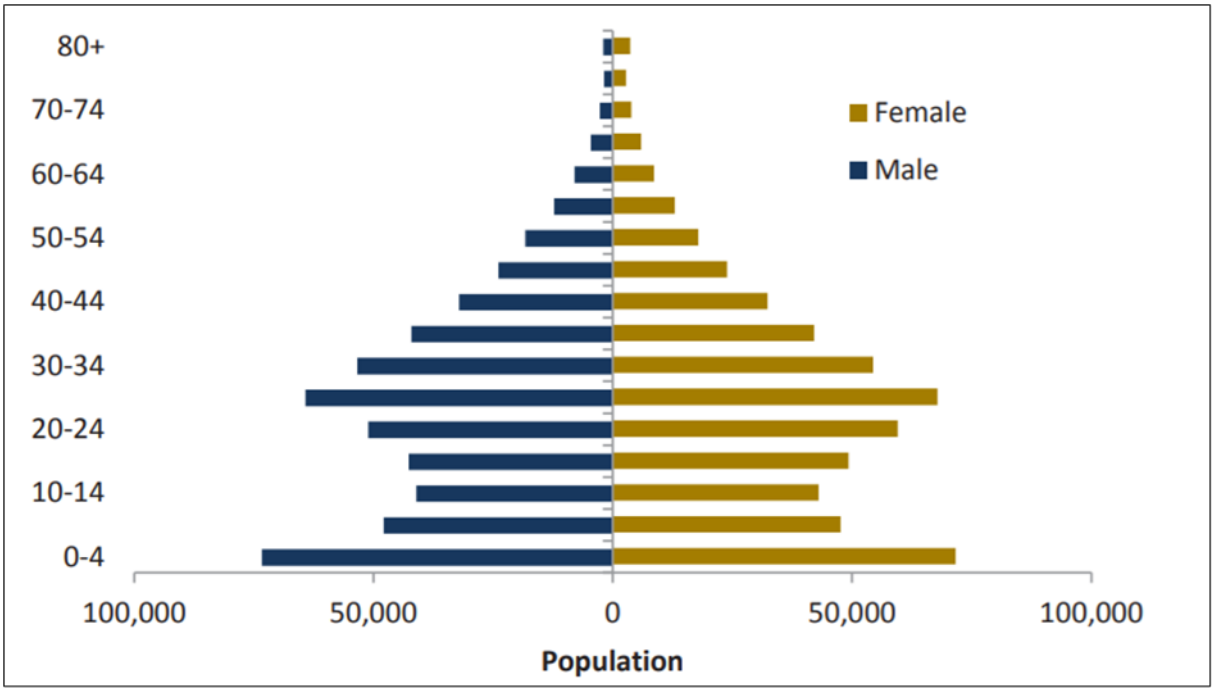


Figure 14 - 2015 urban population pyramid of Namibia

5.6.1 GOVERNANCE

Since its independence in 1990, Namibia is led by a democratically elected and stable government to date through three organs of government and functions (legislative, executive, and judiciary). The country was ranked 5th out of 54 African countries in the Ibrahim Index of African Governance in 2015 and subsequently ranked 4th out of 54 African countries in 2017 for indicators including the quality of governance and the government's ability to support human development; sustainable economic opportunity; rule of law and human rights; and development of smart information and communication technology to access information for socio-economic growth (National Planning Commission, 2017).

As a result of sound governance and stable macroeconomic management, Namibia has experienced rapid socio-economic development. Namibia has achieved the level of 'medium human development and ranks 125th on the Human Development Index out of 188 countries (NPC, 2020). Globally, Namibia was ranked 43rd out of 168 countries in 2018 on the Global Peace Index and was therefore considered one of the most peaceful countries in the world (NPC, 2020).

Namibia is divided into 14 regions, subdivided by 121 constituencies. The Kunene Region is divided into six constituencies. The proposed Project is in the Opuwo constituency of the Kunene Region. The Kunene Regional Council is responsible for the planning and development of the region in a sustainable manner for the benefit of its inhabitants by establishing, managing, and controlling settlement areas and focusing on core services. The council is accountable for an area of 115,293 km^2 (Kunene Regional Development Profile, 2015).

5.6.2 POPULATION AND GROWTH RATE

Namibia is one of the least densely populated countries in the world (2.8 persons per km2). Vast areas of Namibia are without people, in contrast to areas of dense concentrations, such as the central-north and along the Kavango River. Windhoek, the capital, is not only the main urban area with the largest population, but the concentration of private and public head offices attracts Namibians from all parts of the country in search of a better life.

The national population growth rate is estimated at less than 2%, which is lower than that of most African countries. Namibia's population is young – although 57% falls into the age group 15 to 59, 37% of the total population is younger than 15 (Namibia Statistics Agency, 2017). Since 2005, there has been a steady improvement in life expectancy, which is currently estimated at 65 years. In 2018, it was estimated that 50% of all Namibians are urbanised, i.e. living in an urban settlement (retrieved from www.worldpopulationreview.com). The last national census was conducted in 2011 and counted 2.1 million Namibians (Namibia Statistics Agency, 2011). An intercensal demographic survey was conducted in 2016 and estimated the total population at 2.3 million (Namibia Statistics Agency, 2017).

It is predicted that urbanisation will continue, with an increase from 43% of the population living in urban areas in 2011, to 67% in 2041.

Table 8 - Socioeconomic baseline study summary of key indicators

Indicator	Kunene Region	Opuwo
Population estimate (2011 Census)	86 856	15 115
Gender ratio	50.2% male, 49.8% female	N/A
Number of households	18 495	5 178
Schools	64 formal schools 37 mobile units	1 Circuit office in Opuwo 22 centres Opuwo south district 34 centres Opuwo north district
Health facilities	3 hospitals 3 health centres 22 clinics	1 district hospital
Unemployment (Individuals) (2011 census)	32937	9479

5.6.3 EMPLOYMENT

In 2018, 53.4 % of all working Namibians were employed in the private sector and 21.5 % by the state. State-owned enterprises employ 7.6 % of Namibians and private individuals 16.6 %. Wages and salaries represented the main income source of 47.4 % of households in Namibia. Agriculture (combined with forestry and fishing) as an economic sector has the most employees – 23 % of all employed persons in Namibia work in this sector. Agriculture is also the sector that employs the most informal workers in Namibia, calculated at 87.6 %. Wages of employees in the agriculture sector are lower than all other sectors except for workers in accommodation and food services and domestic work in private households (NSA, 2019).

Low education levels affect employability and prevent many households to earn a decent income. Of all people employed in Namibia, 63.5 % are not higher qualified than junior secondary level (Grade 10 and lower). In total 11.8 % of all people employed had no formal education. In total 29.1% of all people employed are within the category “elementary occupation” and 15.2 % in the category “skilled agriculture” (NSA, 2019).

Overall, the rate of unemployment is estimated at 33.4 % for Namibia, using the broad definition of unemployment. More than 60 % of the population is over 15 years of age and about one-third of the total population can be regarded as part of the labour force. The unemployment rate in rural and urban areas is almost the same – 33.4 % in urban areas and 33.5 % in rural areas (NSA, 2019). The youth group also ranks high in unemployment levels, even though many Namibia youth complete post-secondary education. In 2018 the unemployment level was at 59.6 % for those aged 15-19, 57 % for those aged 20-24, and 42.3 % for 25-29-year-olds (NSA, 2018).

According to the Socio-Economic impact Assessment of COVID-19 in Namibia by the United Nations Namibia (2020), there has been an estimated increase in unemployment from 33.4 % to 34.5 % and through a best-case scenario, it is also estimated that poverty will increase from 17.2 % to 19.5 % due to a drop in the domestic GDP (United Nations Namibia 2020).

5.6.4 ECONOMIC ENVIRONMENT

Mining plays a pivotal role in the economy of Namibia. Since independence, it has consistently been the biggest contributor to Namibia’s economy in terms of revenue and accounts for 25% of the country’s income. Mining is one of the main contributors to GDP, and one of the largest economic sectors of Namibia.

Since 2016, Namibia has recorded slow economic growth, registering an estimated growth of only 1.1% in 2016. The primary and secondary industries contracted by 2.0 and 7.8% respectively. During 2017 the economy contracted by 1.7, 0.7 and 1.9% in the first, second and third quarters respectively (NSA, 2019). Despite the more positive expectations, the economy retracted to an average growth of not more than 1% annually since 2017.

During the second quarter of 2020, the domestic economy contracted by 11.1%, which is the largest contraction since 2013; However, the Bank of Namibia (BoN) predicts that the Gross Domestic Product (GDP) could grow by 1.9% in 2021 and by 2.8% in 2022. The impact assessment also showed that 96.5% of tourism businesses have been affected by COVID-19 in 2020, the manufacturing and construction sectors contracted by 9.2% and 5.7% respectively and there was also a 2% to 3% decline in net exports (United Nations Namibia 2020).

The EPL overlaps two communal conservancies, Ombombo and Otjindjerese (figure X). A communal conservancy represents a conservation area that is managed by a local community that aims to manage the natural resources within their conservancy in a sustainable way to generate returns and other benefits (MET/NACSO, 2018).

The locals of these communities are mainly employed by lodges, camps, or the locals farm with livestock in the area. Tourism and consumptive wildlife use are the main benefit contributor to these local communities, in addition, to income generated from plant products and local crafts (MET/NACSO,2018).

5.6.5 HEALTH AND DISEASE

Since independence in 1990, the health status of Namibia has increased steadily, with a remarkable improvement in access to primary health facilities and medical infrastructure. In 2015, the World Health Organisation (WHO) recommended strategic priorities for the health system in Namibia, which entailed improved governance, an improved health information system, emergency preparedness, risk reduction and response, preventative healthcare, and the combating of HIV/AIDS and TB (WHO, 2016).

As elsewhere in Namibia, HIV/AIDS remains a major reason for low life expectancy and is one of the leading causes of death in the region. HIV/AIDS remains the leading cause of death and premature mortality for all ages, killing up to half of all males and females aged 40 to 44 years in 2013 (IHME, 2016).

Tuberculosis (TB) is a leading killer of people infected by HIV/AIDS, and Namibia had a high burden in 2018 – 35% of people with TB were infected with HIV. The country is included among the top 30 high-burden TB countries in the world, with an estimated incidence rate of 423 per 100,000 people, and 60 fatalities per 100,000 people in 2018 (retrieved from www.mhss.gov.na).

As of the beginning of 2020, the coronavirus (COVID-19), caused illness in humans on a pandemic scale and has resulted in an increasing number of deaths worldwide. The viral outbreak has adversely affected various socioeconomic activities globally, and with reports of a continually increasing number of people testing positive, it is anticipated that this may have significant impacts on the operations of various economic sectors in Namibia too. The disease caused many

countries to enter a state of emergency, which included various levels of lockdown restrictions that had dire economic consequences. In addition, these measures have had a detrimental effect on tourism, and Namibia is, in both cases, no exception.

Furthermore, COVID-19 has also resulted in a loss of learning and socialising opportunities for children in Namibia and there was a lack of access to school feeding programs and parents had to provide or find alternative care for children. There has also been a 6 % increase in health workers across Namibia as a result of the pandemic (United Nations Namibia 2020). The Namibian economy remains confined, following the aftermath of COVID-19. Hence, development partners, and public and private sectors need the commitment to explore new approaches in order to revive the fragile economy (NSA,2019). By mid-February 2022, Namibia has recorded 4 002 deaths due to COVID-19 most of these deaths occurred in 2021, as a result of the Delta and Omnicron variants.

5.6.6 CULTURAL HERITAGE

From the Namibian GIS data and information from the Atlas of Namibia, there are no heritage sites within the proposed site with regards to the following periods: records from 1.8 million to 10000 years ago, 10000 to 2000 years ago or within the last 2000 years (Bubenzer, 2002 & Mendelsohn et al., 2002). Regardless, there is potential to unearth heritage sites.

5.6.7 SOCIO-ECONOMIC ENVIRONMENT

Early childhood development (ECD) programmes are crucial for children to develop the necessary skills to further their future educational and career pathways. The 2011 census concluded that of the total children recorded between the ages of 0 to 4 years (283 501), only 13% attending ECD programmes country wide. Accesses to these ECD centres in urban areas were higher than in rural areas. At a regional level, a higher proportion of children attended ECD programmes in Erongo (24.2%). It can be concluded that the mining industry has played a role to better these facilities as part of its educational and community outreach programmes.

The 2011 NCP survey revealed that the literacy rate in Namibia for the population 5 years and above was 85.3%. The rate was marginally higher for men (85.4%) than for women (85.1%). Furthermore, literacy rates were higher in urban (93%) than in rural (79%) areas (Government of Namibia, 2011).

The 2011 national adult literacy rate (15 years and above) was 89%, with no major difference between males and females. The adult literacy rate in urban areas stood at 96% compared to 83% in rural areas (Government of Namibia, 2011). The adult literacy rate in the Erongo was 96.7%, with females (96.9%) slightly more literate than males (96.4%).

The 2011 literacy rate for youth (15 to 24 years) in Namibia was 94%, with higher proportions of women (95.3%) being literate than men (92.5%). The rate was again higher in urban (98%) than

rural areas (92%) (Government of Namibia, 2011). The 2011 school enrolment rate for the school going population (5 to 24 years) was not high at 56%. However, the primary school enrolment rate for the Erongo was high (91.2%) with more primary school going females (92%) over males (90.5%).

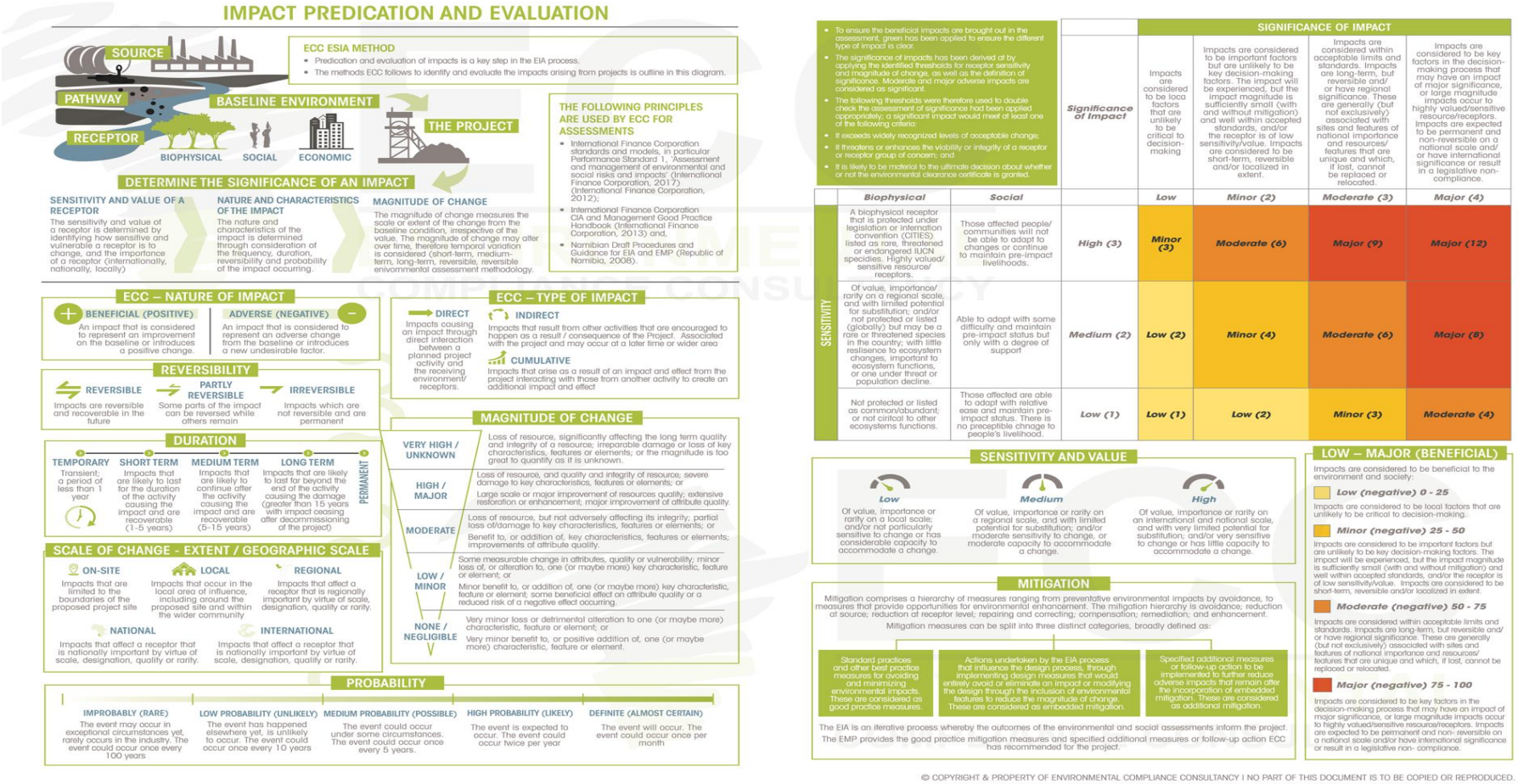
6 IMPACT IDENTIFICATION & EVALUATION METHODOLOGY

6.1 INTRODUCTION

This chapters outlines ECCs method to identify and evaluate impacts arising from the proposed project. The findings of the assessment are presented in Chapter 7.

The evaluation and identification of the environmental and social impacts require the assessment of the project characteristics against the baseline characteristics, ensuring all potentially significant impacts are identified and assessed. The significance of an impact is determined by taking into consideration the combination of the sensitivity and importance or value of environmental and social receptors that may be affected by the proposed project, the nature and characteristics of the impact, and the magnitude of potential change. The magnitude of change (the impact) is the identifiable changes to the existing environment which may be negligible, low, minor, moderate, high, or very high; temporary or short term, long-term or permanent; and either beneficial or adverse as shown in Figure 15.
This chapter provides the following:

- Details on the assessment guidance used to assess impacts;
- Lists the limitations, uncertainties and assumptions with regards to the assessment methodology;
- Details how impacts were identified and evaluated, and how the level of significance was derived; and
- Details how mitigation was applied in the assessment and how additional mitigation was identified.



- To ensure the beneficial impacts are brought out in the assessment, green has been applied to ensure the different type of impact is clear.
- The significance of impacts has been derived at by applying the identified thresholds for receptor sensitivity and magnitude of change, as well as the definition of significance. Moderate and major adverse impacts are considered as significant.
- The following thresholds were therefore used to double check the assessment of significance had been applied appropriately; a significant impact would meet at least one of the following criteria:
- It exceeds widely recognized levels of acceptable change;
- It threatens or enhances the viability or integrity of a receptor or receptor group of concern; and
- It is likely to be material to the ultimate decision about whether or not the environmental clearance certificate is granted.

			SIGNIFICANCE OF IMPACT			
		Significance of Impact	Impacts are considered to be loca factors that are unlikely to be critical to decision-making	Impacts are considered to be important factors but are unlikely to be key decision-making factors. The impact will be experienced, but the impact magnitude is sufficiently small (with and without mitigation) and well within accepted standards, and/or the receptor is of low sensitivity/value. Impacts are considered to be short-term, reversible and/or localized in extent.	Impacts are considered within acceptable limits and standards. Impacts are long-term, but reversible and/ or have regional significance. These are generally (but not exclusively) associated with sites and features of national importance and resources/ features that are unique and which, if lost, cannot be replaced or relocated.	Impacts are considered to be key factors in the decision-making process that may have an impact of major significance, or large magnitude impacts occur to highly valued/sensitive resource/receptors. Impacts are expected to be permanent and non-reversible on a national scale and/ or have international significance or result in a legislative non-compliance.
	Biophysical	Social		Low	Minor (2)	Moderate (3)	Major (4)
SENSITIVITY	A biophysical receptor that is protected under legislation or internation convention (CITIES) listed as rare, threatened or endangered IUCN specidies. Highly valued/ sensitive resource/ receptors.	Those affected people/ communities will not be able to adapt to changes or continue to maintain pre-impact livelihoods.	High (3)	Minor (3)	Moderate (6)	Major (9)	Major (12)
	Of value, importance/ rarity on a regional scale, and with limited potential for substitution; and/or not protected or listed (globally) but may be a rare or threatened species in the country; with little resilisence to ecosystem changes, important to ecosystem functions, or one under threat or population decline.	Able to adapt with some difficulty and maintain pre-impact status but only with a degree of support	Medium (2)	Low (2)	Minor (4)	Moderate (6)	Major (8)
	Not protected or listed as common/abundant; or not critical to other ecosystems functions.	Those affected are able to adapt with relative ease and maintain pre-impact status. There is no preceptible chnage to people's livelihood.	Low (1)	Low (1)	Low (2)	Minor (3)	Moderate (4)

SENSITIVITY AND VALUE

Low
Of value, importance or rarity on a local scale; and/or not particularly sensitive to change or has considerable capacity to accommodate a change.

Medium
Of value, importance or rarity on a regional scale, and with limited potential for substitution; and/or moderate sensitivity to change, or moderate capacity to accommodate a change.

High
Of value, importance or rarity on an international and national scale, and with very limited potential for substitution; and/or very sensitive to change or has little capacity to accommodate a change.

MITIGATION

Mitigation comprises a hierarchy of measures ranging from preventative environmental impacts by avoidance, to measures that provide opportunities for environmental enhancement. The mitigation hierarchy is avoidance; reduction at source; reduction at receptor level; repairing and correcting; compensation; remediation; and enhancement.

Mitigation measures can be split into three distinct categories, broadly defined as:

Standard practices and other best practice measures for avoiding and minimizing environmental impacts. These are considered as good practice measures.

Actions undertaken by the EIA process that influence the design process, through implementing design measures that would entirely avoid or eliminate an impact or modifying the design through the inclusion of environmental features to reduce the magnitude of change. These are considered as embedded mitigation.

Specified additional measures or follow-up action to be implemented to further reduce adverse impacts that remain after the incorporation of embedded mitigation. These are considered as additional mitigation.

The EIA is an iterative process whereby the outcomes of the environmental and social assessments inform the project. The EMP provides the good practice mitigation measures and specified additional measures or follow-up action ECC has recommended for the project.

LOW – MAJOR (BENEFICIAL)

Impacts are considered to be beneficial to the environment and society:

Low (negative) 0 - 25

Impacts are considered to be local factors that are unlikely to be critical to decision-making.

Minor (negative) 25 - 50

Impacts are considered to be important factors but are unlikely to be key decision-making factors. The impact will be experienced, but the impact magnitude is sufficiently small (with and without mitigation) and well within accepted standards, and/or the receptor is of low sensitivity/value. Impacts are considered to be short-term, reversible and/or localized in extent.

Moderate (negative) 50 - 75

Impacts are considered within acceptable limits and standards. Impacts are long-term, but reversible and/ or have regional significance. These are generally (but not exclusively) associated with sites and features of national importance and resources/ features that are unique and which, if lost, cannot be replaced or relocated.

Major (negative) 75 - 100

Impacts are considered to be key factors in the decision-making process that may have an impact of major significance, or large magnitude impacts occur to highly valued/sensitive resource/receptors. Impacts are expected to be permanent and non- reversible on a national scale and/or have international significance or result in a legislative non- compliance.

Figure 15 – ECC's Assessment methodology

6.2 ASSESSMENT GUIDANCE

The following principal documents were used to inform the assessment method:

- Namibian Draft Procedures and Guidance for EIA and EMP (Republic of Namibia, 2008) and best practice.
- International Finance Corporation (IFC) standards and models, in particular performance standard 1: 'Assessment and management of environmental and social risks and impacts' (International Finance Coorporation, 2021) for the social environment.
- International Finance Corporation Cumulative Impact Assessment (CIA) and Management Good Practice Handbook (International Finance Coorporation, 2013)for the social environment and overall cumulative impacts, where applicable.

6.3 LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS

The following limitations and uncertainties associated with the assessment methodology were observed:

- Topic-specific assessment guidance has not been developed in Namibia. A generic assessment methodology was applied to all topics using IFC guidance and professional judgement.

A number of limitations and uncertainties were acknowledged during the ESIA process. In line with ESIA best practice, assumptions have been made based on realistic worst-case scenarios, thereby ensuring that the worst-case potential environmental impacts are identified and assessed. Table 6 contains the assumptions and uncertainties identified during the assessment process.

Where uncertainties exist, a cautious approach has been applied, allowing the worst-case scenario for potential impacts to be identified. Where limitation and uncertainties exist, assumptions have been made and applied during the assessment process. These have been clearly described in the baseline section.

Table 9 - Limitations, uncertainties and assumptions

LIMITATION / UNCERTAINTY	ASSUMPTION
Number of access roads and temporary drill campsites	The making of new tracks or access roads will be minimized, and existing tracks and routes will be used as far as possible. While every effort will be made to minimize environmental damage, in some cases it will be necessary to clear some bush to create small roads, which may be required for equipment to reach the site and for temporary campsites. If needed, cut lines have to be created by clearing of vegetation to have access to some parts of the EPL.
The program of exploration works is not confirmed	It is assumed that exploration work shall take a couple of months with two to three-week sampling projects at different times on different sites and with follow-up exploration drilling projects possible. Activities involve drilling, remote sensing; geophysical surveys (airborne and ground-based), geochemical surveys and geological mapping. Pitting and trenching are unlikely and generally not favoured. If commercially viable concentrations can be defined by preliminary drilling, a next phase of advanced resource drilling operations is possible.
Number of workers, area they will come from and accommodation	It is planned that approximately ten people will be contracted for the proposed project. Contractors may camp on exploration sites / communal land, depending on approval from traditional authorities.
Structures	No permanent infrastructure development will take place in this phase of operations which will span the 3-year award period. Depending on results, the proponent will set up temporary field camps required to house field staff for the purpose of sample collection, ground surveys and drilling. The camps will be such that their locations can be fully rehabilitated post completion of the field work.

7 IMPACT ASSESSMENT FINDINGS AND PROPOSED MITIGATION MEASURES

This chapter presents the findings of the EIA for the proposed project as per the ESIA process, scope and methodology set out in Chapter 2 and Chapter 6. A range of potential impacts have been identified that may arise as a result of the proposed project. The aim of this ESIA report is to focus on the significant impacts that may arise as a result of the proposed project. This chapter therefore only considers the significant impacts and or those that may have specific interest to the community and stakeholders. A summary of impacts that are considered significant is discussed in this section.

When undertaking the assessment exercise, the design of the proposed project and best practice measures were considered to ensure the likely significant effects and any required additional mitigation measures were identified. A summary of the potential impacts and mitigation and or control measures are discussed below.
The following topics were considered during the scoping phase:

- Water (surface - and groundwater);
- Soil;
- Landscape (visual impacts, sense of place);
- Socio-economics (employment, demographics, and land-use);
- Noise;
- Ecology (fauna and flora);
- Air quality (emissions, pollutants and dust); and
- Heritage (including culture, history, archaeology and palaeontology).

Table 10 sets out the findings of the scoping assessment phase. Activities that could be the source of an impact have been listed, followed by receptors that could be affected. The pathway between the source and the receptor has been identified where both are present. Where an activity and or receptor have not been identified, an impact is unlikely, thus no further assessment or justification is provided. Where the activity, receptor and pathway have been identified, a justification has been provided documenting if further assessment is required or not required.

Due to the nature and localised scale of the exploration activities, and the environmental context of the EPL, the potential environmental and social effects are limited and unlikely to be significant. Aspects that prompted uncertainty relate to the potential increase in movements and the presence of people, which may cause the introduction of illegal and covert activities such as poaching, stock theft and the collection of organisms. Similarly, the potential of accidental veld fires may increase. In both cases the terrestrial ecology and biodiversity of Namibia is the receptor, although local landowners and their neighbours may experience these adversities firsthand. The recommended mitigation measures are contained in Table 10.

Cumulative impacts as a result of physical disturbance, the nuisance of noise and dust and the loss of sense of place may be experienced as well; in this case the receptors are the community members, visitors and tourists. Noise may have an effect on some organisms as well, though. Mitigation measures are recommended and contained in Table 10

All precautions must be taken to prevent damage to heritage sites, in particular when a site with paleontological remains is discovered as a result of the exploration activities. The chance find procedure will be implemented in such a case. With the necessary mitigation measures in place (Table 10), the significance of the impact reduces from moderate to minor.

Table 10 - Scoping assessment findings and proposed mitigation measures

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
Site operations such as maintenance activities, loss of containment, accidental fuel / hydraulic fluid leaks and spills, or similar sources.	**Groundwater quality**	Hydrocarbon leaks and spills could enter the aquifer causing contamination	Adverse Direct Partly Reversible Moderate Short term Regional Possible	Medium	Minor	Minor (4)	- Good housekeeping - Training through safety talks and induction - All stationary vehicles and machinery must have drip trays to collect leakages of lubricants and oil - Spill kits and absorption material available during fuel delivery,	**Low (2)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							storage or use - Accidental spills and leaks (including absorption material) to be cleaned as soon as possible - Major spills to be reported, also to the authorities - Maintenance and service schedules on equipment is in place - Store bulk fuel in adequate containment areas (non-porous	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							surface, bunded) - No damaged containers in use - Preventative measures will be in place when service and maintenance activities are done (drip trays, non-porous surfaces, funnels, non-damaged containers) - Refuelling will be done in areas with adequate preventative measures in place	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
Potential spillages of drill fluid, lubrication, etc. or drilling that penetrate the groundwater table.	**Groundwater quality**	Hydrocarbon leaks and spills could enter the aquifer causing contamination	Adverse Indirect Partly Reversible Minor Short term Local Possible	Low	Minor	Low (2)	- Ensure spill kits and preventative measures (e.g. drill pads) are in place at exploration sites - Consider alternative sites when water table is too high - Drainage system should be dug to direct any accidental spills into sumps - Extraction volumes of water shall be minimal during exploration	**Low (1)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							and where possible, water from existing water sources shall be used	
Discharge and infiltration of non-contained wastewater	**Water**	Wastewater can contaminate surface and groundwater	Adverse Direct Partly Reversible Minor Short term Regional Unlikely	Low	Minor	Low (2)	- Wastewater discharges will be contained - Workers will be made aware about the importance of wastewater management - Good housekeeping - Ensure prompt clean-up of spills	**Low (1)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
Inadequate management of solid waste	**Water**	Waste items and litter can pollute drainage channels	Adverse Cumulative Reversible Minor Temporary On-site Unlikely	Low	Low	Low (1)	- Good housekeeping - Training and awareness through safety-talks and induction - Implement a Standard Operational Procedure (SOP) on waste management, for all kinds of waste possible on-site (e.g., domestic, mineral, hydrocarbons, hazardous) - Avoid hazardous waste on site	**Low (1)**
Inadequate management of hazardous and hydrocarbon waste	**Soil**	Pollution of soil	Adverse Direct Reversible Minor Short term On-site Possible	Low	Minor	Low (2)		**Low (1)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							- Implement a culture of correct waste collection, waste segregation and waste disposal	
Vegetation clearing for access routes, drill pads and temporary contractors camp	**Terrestrial ecology and biodiversity**	Loss / alteration of terrestrial habitats and loss of species	Adverse Direct Reversible Minor Short term On-site Possible	Low	Minor	Low (2)	- Use existing roads for access to minimize new tracks and cut lines - Minimise clearance areas through proper planning of the exploration activities - Where necessary, rescue and relocate	**Low (1)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							plants of significance - Promote revegetation of cleared areas upon completion of exploration activities	
Ambient noise as a result of machinery and equipment-use and movement (e.g., drill rigs, generators, vehicles) and movement (also through the use of	**Terrestrial ecology and biodiversity**	Residing, slow-moving and nesting organisms can be disturbed	Adverse Direct Reversible Minor Short term On-site Likely	Low	Minor	Low (2)	- Restrict excessive noise to areas of activities only - Restrict excessive noise to daytime hours (7 am to 5 pm weekdays and 7 am until 1 pm on Saturday) - No activities between	**Low (1)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
airborne equipment)							dusk and dawn - Drill equipment shall be suitably positioned to ensure that noisy equipment is away from receptors - All equipment to be shut down or throttled back between periods of use, - Respect civic aviation regulations about the use of a drone	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
Increased movement of vehicles, machinery and equipment	**Terrestrial ecology and biodiversity**	Residing and nesting organisms such as reptiles can be disturbed, injured or killed	Adverse Direct Partly reversible Moderate Short term On-site Possible	Low	Minor	Low (2)	- Restrict movements to areas of activities only - Use existing tracks and routes only - Identify rare, endangered, threatened and protected species in advance - Route new tracks around protected species and sensitive areas - Restrict movements to daytime hours - Make workers	**Low (1)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							aware and notify them on avoiding some areas - No driving off designated access routes (into the bush) / off-road driving - No animals or birds may be collected, caught, consumed or removed from site	
Increased disturbance of areas with natural vegetation	**Terrestrial ecology and biodiversity**	Alien species and weeds can be introduced to the area	Adverse Direct Reversible Minor Short term	Low	Minor	Low (2)	- All project equipment arriving on site from an area outside of the project or coming from an area of	**Low (1)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
			On-site Possible				known weed infestations (not present on the project site) should have an internal weed and seed inspection completed prior to equipment being used - Monitor areas of activity for weed and alien species - Eradicate weeds and alien species as soon as they appear - Make workers	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							aware about alien species and weeds	
Vegetation clearing	**Soil**	Increased exposure due to possible vegetation clearance can cause soil erosion	Adverse Direct Reversible Moderate Short-term On-site Possible	Low	Minor	Low (2)	- Ensure erosion control and prevention measures are in place when vegetation clearance is required - Where necessary, plan access routes, drill pads and camps outside of existing drainage lines	**Low (1)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							- Where necessary, install diversions to curb possible erosion - Restore drainage lines when disturbed	
Drilling and the use of drilling equipment	**Soil**	Loss of soil quality due to mixing of earth matter, trampling and compaction	Adverse Direct Reversible Moderate Short term On-site Possible	Low	Minor	Low (2)	- Limit the possibility of compaction and creating of a hard subsurface - Limit the possibility of trampling - Topsoil should be stockpiled separately, and re-spread during rehabilitation	**Low (1)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							- During drilling oil absorbent matting or plastic should be placed under and around the rig - Equipment must be in a good condition to ensure that accidental oil spills do not occur and contaminate soil - In the event of spills and leaks, polluted soils must be collected and disposed of at an	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							approved site - Limit the possibility to mix mineral waste with topsoil	
Terrestrial ecology and biodiversity	Accidental and uncontrolled fire	Destroys grazing and kill living organisms	Adverse Direct Reversible Moderate Temporary Local Possible	High	Minor	Moderate (6)	Restrict movements of people to areas of activities only Train people and raise awareness about veld fires and firefighting No open fire outside designated areas Ensure proper cooking	**Minor (3)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							facilities at fly camps No cigarette buds are discarded but contained and disposed of at an appropriate facility Proper fire hazard identification signage to be placed in areas that store flammable material (i.e. hydrocarbons and gas bottles) Control and reduce the potential risk of fire by	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							segregating and safe storage of materials Avoid potential sources of ignition by prohibiting smoking in and around facilities - Firefighting equipment and fire breaks should always be at designated areas and should be maintained regularly	
Community and livestock	Airborne surveying over the	Perceived impact from surveying	Adverse	Low	Minor	Low (2)	Prior to conducting aerial	**Low (1)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
	EPL, possible low flying	activities on livestock and humans	indirect Reversible Minor Temporary Local Unlikely				surveying, both directly and indirectly affected parties should be informed in writing of exploration activities at least 2 weeks prior to conducting the aerial surveys. The following information is to be included in the written communication sent: - Company name, - Survey dates, time and duration, - Purpose of the survey,	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							- Flight altitude, - Survey location, Map of survey area and flight lines, and - Contact details for enquiries. - Compliance with all applicable laws and agreements - Maintain continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							measures agreed upon - Ensure appropriate supervision of all activities - Restrict surveying activities to daytime hours (and in accordance with the airflight plan/ permit issued by the Namibian Civil Aviation Authority (NCAA))	
Drilling activities, movement of machinery and vehicles	**Heritage**	Potential damage to cultural heritage sites	Adverse Direct Partly Reversible High Permanent	High	Minor	Moderate (6)	- Implement a Chance Find Procedure - Raise awareness about possible	**Minor (4)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
			On-site Possible				heritage finds - Report all finds that could be of heritage importance - In case archaeological remains to be uncovered, cease activities and the site manager has to assess and demarcate the area - Project manager to visit the site and determine whether work can proceed	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							without damage to findings, mark exclusions boundary and inform ECC with GPS position - If needed, further investigation has to be requested for a professional assessment and the necessary protocols of the Chance Find Procedure have to be followed, - Archaeologist will evaluate the	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							significance of the remains and identify appropriate action, (record and remove; relocate or leave premises, depending on the nature and value of the remains), - Inform the police if the remains are human, - Obtain appropriate clearance or approval from the competent authority, if required,	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							and recover and remove the remains to the National Museum or National Forensic Laboratory as directed.	
Drilling activities, resulting into dust emissions Windblown dust from exposed/cleared land during exploration activities	**Community**	Visual disturbance and loss of Sense of Place	Adverse Direct Reversible Moderate Temporary Local Likely	High	Minor	Moderate (6)	– Position drill equipment in such a way that it is out of sight from human receptors where practicable – Apply dust suppression where possible – Restrict speed of vehicles (<30km/h)	**Minor (4)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							– Specific activities that may generate dust and impact on residents shall be avoided during high wind events – All vehicles and machinery / equipment to be shut down or throttled back between periods of use – Barriers or fences shall be used if drilling occurs in locations	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							that may affect residents or livestock – Residents need to be informed at least two weeks in advance that drilling operations are within 1km of their property – Maintain good housekeeping – Continuous engagement with residents to identify any concerns or issues, and appropriate mitigation	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							and management measures agreed upon	
Movement of vehicles, exploration activities	**Community**	Create conflict with communal land members about access, leaving gates open, suspicious movements, loss of farming area, etc.	Adverse Indirect Reversible Minor Short term On-site Likely	Low	Minor	Low (2)	– Ensure documented permission to enter communal lands should have access to all communal areas at all times – Residents shall be provided at least two weeks' notice of drilling operations within 1 km of their property – Existing water points and feeding	**Low (1)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							area need to be left unaffected – Use existing roads for access, avoid new tracks / cut lines, – Compliance with all applicable laws and agreements – Continuous engagement with residents to identify any concerns or issues, and mitigation and management measures agreed upon	
Movement of vehicles,	**Community**	Presence of exploration	Adverse	Low	Low	Low (1)	– Develop and implement an	**Low (1)**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
exploration activities		team can be blamed for stock theft and poaching	Cumulative Reversible Minor Temporary Local Unlikely				operations manual or procedures to work on communal lands and implement monitoring programmes thereafter – Maintain continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management measures agreed upon – Ensure appropriate supervision	

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							of all activities – Raise awareness and sensitize employees about contentious issues such as stock theft and poaching – Accidents and incidents need to be reported to project manager and recorded in incident register	
Exploration activities	**Community**	Triggers job creation, skills development and opportunities	Beneficial Direct Reversible Minor	Medium	Low	Low (2)	– Maximize local employment – As far as possible promote	**Low beneficial**

DESCRIPTION OF ACTIVITY	RECEPTOR	DESCRIPTION OF IMPACT	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT /CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
		for the local economy	Short term Local Possible				local procurement – Enhance development of local skills where possible	

8 ENVIRONMENTAL MANAGEMENT PLAN

The EMP for the proposed project is presented in Appendix A. It provides management options to ensure the impacts of the proposed project are minimised. An EMP is a tool used to take pro-active action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures might be included if necessary.

The management measures should be adhered to during all stages of the exploration activities. All persons involved and partaking in the proposed activities should be made aware of the measures outlined in the EMP to ensure activities are conducted in an environmentally responsible manner.
The objectives of the EMP are:

- To include all components of the development and operations of the project;
- To prescribe the best practicable control methods to lessen the environmental impacts associated with the project;
- To monitor and audit the performance of operational personnel in applying such controls; and
- To ensure that appropriate environmental training is provided to responsible operational personnel.

9 CONCLUSION

ECC's ESIA methodology was used to undertake the environmental assessment for the proposed exploration activities on EPL 8572, to identify if there is potential for significant effects to occur as a result of the proposed project.

Through the scoping process, the only risk to the environment is related to the cumulative impacts as a result of physical disturbance, nuisance of noise and dust and the loss of sense of place, thereby impacting human receptors in the area. Impacts with respect to airborne dust are expected to be limited to vehicular traffic and RC drilling activities (diamond drilling does not generate dust). There will be some release of exhaust fumes from machinery that will impact the immediate vicinity but will be of short duration. Additionally, there will be associated drilling and machinery noise, which could be a disturbance to immediate neighbours, but this will be of short duration as well. Through further analysis and identification of mitigation and management methods, the assessment concludes that the likely significance of effects on humans from the cumulative impacts of physical disturbance, noise, dust and emissions will be a temporary qualitative reduction in the sense of place and expected to be minor. Prior awareness and communication about the project shall be encouraged.

Due to the increased movements and presence of people, there is a potential that illegal and covert activities such as poaching, stock theft and the collection of organisms can be introduced to the area. Similarly, the potential of accidental veld fires may increase. In both cases the terrestrial ecology and biodiversity of Namibia is the receptor, although local landowners and their neighbours may experience these adversities first-hand. Through this investigation the significance of both impacts is indicated as moderate. In both cases numerous mitigation measures, with proven national success, exist and were also applied to reduce the significance to minor.

Heritage sites may exist around the EPL. All precautions will be taken to prevent damage to heritage sites, as a result of the exploration activities. The chance find procedure will be implemented in such a case. With the necessary mitigation in place, the significance reduces from moderate to minor.

All other social and environmental receptors were scoped out as significant effects were unlikely and therefore no further assessment was deemed necessary. Various best practice and mitigation measures have been identified to avoid and reduce effects as far as reasonably practical, as well as ensure the environment is protected and unforeseen effect and environmental disturbances are avoided.

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APPENDIX A – ENVIRONMENTAL MANAGEMENT PLAN

APPENDIX B – BACKGROUND INFORMATION DOCUMENT

APPENDIX C – NEWSPAPERS AND ADVERTISMENTS

Market watch in local newspapers published on the 27th of June 2022

Market watch in local newspapers published on the 4th of July 2022

6 Republikein Sun Allgemeine Zeitung Market Watch MONDAY 4 JULY 2022

skorpion zinc

NOTICE OF AN ENVIRONMENTAL ASSESSMENT & PUBLIC PARTICIPATION PROCESS FOR THE PROPOSED EXPLORATION ACTIVITIES ON EPL 8570 FOR BASE, RARE, AND PRECIOUS METALS AND INDUSTRIAL MINERALS, WITHIN THE //KHARAS REGION, NAMIBIA.

Environmental Compliance Consultancy CC (ECC) hereby gives notice to the public that an application for an environmental clearance certificate in terms of the Environmental Management Act, No. 7 of 2007 will be made as per the following:

Applicant: Skorpion Mining Company (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: //Kharas Region, Namibia

Project: The proposed exploration site is located approximately 26km NW of Rosh Pinah, accessible via the C13, //Kharas Region, Namibia.

Proposed Activities: The Proponent, Skorpion Mining Company (Pty) Ltd, intends to explore for base, rare metals and precious metals and industrial metals on EPL 8570. The proponent will conduct geological mapping, geochemical surveys (soil and bulk sampling), geophysical surveys (airborne and ground) and remote sensing surveys. Reverse circulation and diamond drilling may follow, but will only take place for advanced targets when it is confirmed that mineralization is present.

Purpose of the review and registration period: : The purpose of the review and registration period is to introduce the proposed project and to provide an opportunity for people who are potentially interested and/or affected parties (I&APs) to register for the project's impact assessment process. Registered I&APs will be provided with the opportunity to comment on the background information document (BID), to ensure that their issues, and concerns are brought forward, captured and considered in the assessment process.

The registration period is effective from 27 June 2022 to 18 July 2022. I&APs and stakeholders are required to register at: https://eccenvironmental.com/done-and/the-proposed-exploration-of-base-rare-and-precious-metals-and-industrial-materials-on-epl-8570-kharas-region-namibia/

The team at ECC will then maintain contact with all registered I&APs to keep them informed and engaged with the EIA process. ECC will provide registered I&APs relevant documents for their review during the assessment process and all documents will be made available on the website.

Environmental Compliance Consultancy
Registration Number: CC/2013/1494
Members: Mr JG Bezuidenhout or Mrs J Mooney
PO Box 91193, Klein Windhoek
Tel: +264 61 699 7608
E-mail: info@eccenvironmental.com
Website: www.eccenvironmental.com/projects
Project ID: ECC-99-387-ADT-09-D

ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

skorpion zinc

NOTICE OF AN ENVIRONMENTAL ASSESSMENT & PUBLIC PARTICIPATION PROCESS FOR THE PROPOSED EXPLORATION ACTIVITIES ON EPL 8571, 8572 & 8573 FOR BASE, RARE, AND PRECIOUS METALS AND INDUSTRIAL MINERALS, WITHIN THE KUNENE REGION, NAMIBIA.

Environmental Compliance Consultancy CC (ECC) hereby gives notice to the public that an application for an environmental clearance certificate in terms of the Environmental Management Act, No. 7 of 2007 will be made as per the following:

Applicant: Skorpion Mining Company (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Kunene Region, Namibia

Project: The proposed exploration sites are located in the Opuwo district accessible from Opuwo, Kunene Region, Namibia.

Proposed Activities: The Proponent, Skorpion Mining Company (Pty) Ltd, intends to explore for base, rare metals and precious metals and industrial metals on EPL 8571, 8572 & 8573. The proponent will conduct geological mapping, geochemical surveys (soil and bulk sampling), geophysical surveys (airborne and ground) and remote sensing surveys. Reverse circulation and diamond drilling may follow, but will only take place for advanced targets when it is confirmed that mineralization is present.

Purpose of the review and registration period: The purpose of the review and registration period is to introduce the proposed project and to provide an opportunity for people who are potentially interested and or affected parties(I&APs) to register for the project's impact assessment process. Registered I&APs will be provided with the opportunity to comment on the background information document (BID), to ensure that their issues and concerns are brought forward, captured and considered in the assessment process.

The registration period is effective from 27 June 2022 to 18 July 2022. I&APs and stakeholders are required to register at: https://eccenvironmental.com/done-and/the-proposed-exploration-activities-for-base-rare-and-precious-metals-and-industrial-materials-on-epls-8571-8572-8573-kunene-region-namibia/

The team at ECC will then maintain contact with all registered I&APs to keep them informed and engaged with the EIA process. ECC will provide registered I&APs relevant documents for their review during the assessment process and all documents will be made available on the website.

Environmental Compliance Consultancy
Registration Number: CC/2013/1494
Members: Mr JG Bezuidenhout or Mrs J Mooney
PO Box 91193, Klein Windhoek
Tel: +264 61 699 7608
E-mail: info@eccenvironmental.com
Website: www.eccenvironmental.com/projects
Project ID: ECC-99-387-ADT-09-D

ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

STAKEHOLDER'S NOTICE

CRAN

INVITATION TO PUBLIC CONSULTATION ON
IMT-2020 5G STRATEGY FOR NAMIBIA FOR THE PERIOD 2022 – 2027

The **Communications Regulatory Authority of Namibia (CRAN)** herewith informs all stakeholders and members of the public that it has published a draft **Fifth Generation (5G) Strategy for Namibia** for **2022** to **2027** for consultation. The document is available on CRAN website www.cran.na, under the **5G IMT** menu tab.

Furthermore, all stakeholders are requested to submit written comments from **01 to 31 July 2022** (within **30 days** of issuing this notice) to the Authority at email: 5Gstrategy@cran.na.

In addition, the Authority will host a public hearing on the **Friday, 05 August 2022** at **venue To be Confirmed (TBC)**. All stakeholders and members of the public who wish to attend should **RSVP** on/or before **Monday, 01 August 2022** before close of business at Tel: +264 61 222 666 or email: 5Gstrategy@cran.na.

Questions, queries and further clarification may be directed to Ms. Ronel Le Grange, Head: Electronic Communications at Tel: +264 61 222 666 or email: RLeGrange@cran.na.

Physical Address: Communications House, No 56 Robert Mugabe Avenue, Windhoek, Namibia
Postal Address: Private Bag 13309, Windhoek, Namibia Tel: +264 61 222 666 Fax: +264 61 222 790
FaxEmail: +264 088 642 748 Website: www.cran.na

GKD GRANDVIEW KLEIN

VACANCIES

GRANDVIEW DIAMONDS NAMIBIA (PTY)LTD
Reg. No. 2007/151

Grandview Diamonds Namibia (Pty) Ltd an equal opportunity employer invites candidates who are experienced and passionate about the diamond industry and with uncompromising standards of excellence to a career in the industry.

5 x EXPERIENCED ROUND DIAMOND POLISHERS
5 x EXPERIENCED FANTASY DIAMOND POLISHERS
1 x ACCOUNTANT

Qualifications Required:

- Grade 10 or 12 certificate for diamond polishers
- 5 – 7 years' experience as a round diamond Polisher
- 5 – 7 years' experience as a Fantasy Diamond Polisher
- Experience of polishing round shape on a level of Triple Ex and very good
- Experience of polishing fancy shapes
- 8 -10 years' experience as an Accountant
- Grade 12 Certificate plus relevant qualification in finance/ accounting
- Good spoken English
- Police clearance is a mandatory requirement
- Trustworthy and self-driven
- Preference will be given to Namibian citizens
- Previous employer's reference letter is mandatory

Closing date for application is 15 JULY 2021

CV/Resume should be accompanied by a cover letter, certified copies of identification document, highest qualifications and police clearance.

Individuals with disabilities are encouraged to apply.

Please forward CV/Resume to the Human Resources at the following postal address:

P.O. Box 81279, Olympia, Windhoek
OR alternatively CV/Resumes can be delivered to our offices at:
25 – 27 Nickel Street, Prosperita, Windhoek.

No emailed or faxed CV's will be accepted

EMBASSY OF THE UNITED STATES OF AMERICA

The United States Embassy in Windhoek has the following vacancy as detailed below. Please note that applications must be submitted electronically via the Electronic Recruitment Application (ERA) system, by July 15, 2022 to be considered.

Interested applicants should visit the U.S. Embassy website at https://na.usembassy.gov/embassy/jobs/ to apply for this vacancy

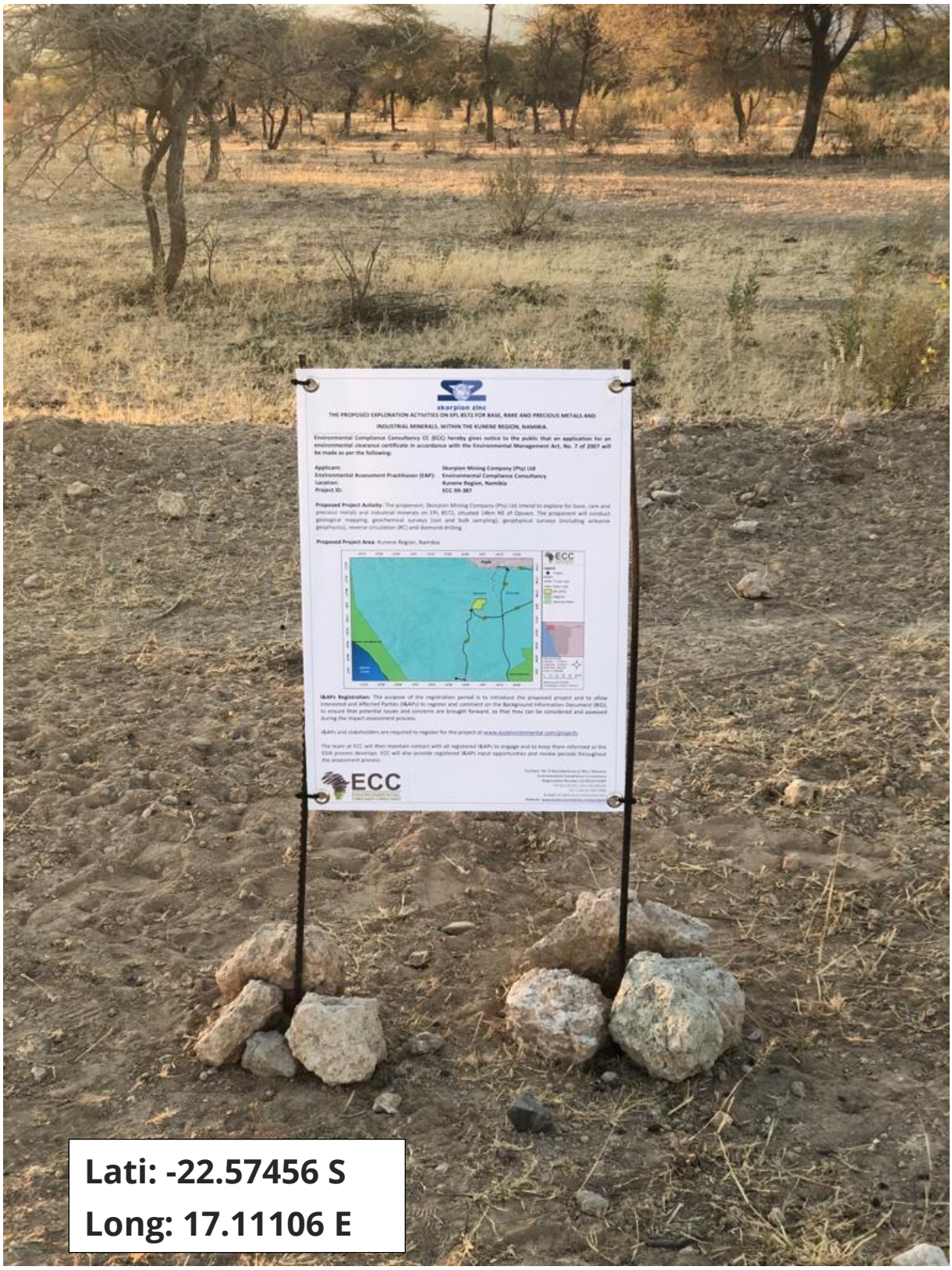
Trades Helper

Located in the Facilities Maintenance Section and supervised by the Maintenance Supervisor, the incumbent will assist Maintenance Technicians in the completion of Work Orders in the different trades (Electrical, HVAC, and Plumbing). Works independently on semi-skilled requests and on any painting requirements. Works on all U.S. Government facilities including office buildings and residential.

FOR FURTHER INFORMATION: The complete position descriptions listing all of the duties and responsibilities may be obtained on our website at https://na.usembassy.gov/embassy/jobs/

EQUAL EMPLOYMENT OPPORTUNITY: The U.S. Mission provides equal opportunity and fair and equitable treatment in employment to all people without regard to race, color, religion, sex, national origin, age, disability, political affiliation, marital status, or sexual orientation. The Department of State also strives to achieve equal employment opportunity in all personnel operations through continuing diversity enhancement programs.

APPENDIX D – SITE NOTICES

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skorpion zinc
THE PROPOSED EXPLORATION ACTIVITIES ON EPL 8572 FOR BASE, RARE AND PRECIOUS METALS AND
INDUSTRIAL MINERALS, WITHIN THE KUNENE REGION, NAMIBIA.
Environmental Compliance Consultancy CC (ECC) hereby gives notice to the public that an application for an environmental clearance certificate in accordance with the Environmental Management Act, No. 7 of 2007 will be made as per the following:
Applicant: Skorpion Mining Company (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Kunene Region, Namibia
Project ID: ECC-99-387
Proposed Project Activity: The proponent, Skorpion Mining Company (Pty) Ltd intend to explore for base, rare and precious metals and industrial minerals on EPL 8572, situated 14km NE of Opuwo. The proponent will conduct geological mapping, geochemical surveys (soil and bulk sampling), geophysical surveys (including airborne geophysics), reverse circulation (RC) and diamond drilling.
Proposed Project Area: Kunene Region, Namibia
I&APs Registration: The purpose of the registration period is to introduce the proposed project and to allow interested and Affected Parties (I&APs) to register and comment on the Background Information Document (BID), to ensure that potential issues and concerns are brought forward, so that they can be considered and assessed during the impact assessment process.
I&APs and stakeholders are required to register for the project at www.eccenvironmental.com/projects
The team at ECC will then maintain contact with all registered I&APs to engage and to keep them informed as the ESIA process develops. ECC will also provide registered I&APs input opportunities and review periods throughout the assessment process.
ECC
ENVIRONMENTAL
COMPLIANCE CONSULTANCY
Lati: -17.95238 S
Long: 13.85525 E

APPENDIX E – STAKEHOLDER LETTER

+264 81 669 7608
info@eccenvironmental.com
www.eccenvironmental.com

REFERENCE: ECC-99-378-LET-20-D

27 June 2022

Identified stakeholder and potentially interested or affect party for:

The proposed exploration activities on EPL 8572 for base, rare metals, industrial and precious metals within the Kunene Region

RE: NOTIFICATION OF AN ENVIRONMENTAL ASSESSMENT OF THE PROPOSED EXPLORATION ACTIVITIES ON EPL 8572 FOR BASE, RARE METALS, INDUSTRIAL MINERALS AND PRECIOUS METALS WITHIN THE KUNENE REGION, NAMIBIA.

Environmental Compliance Consultancy (ECC) has been engaged by Skorpion Mining Company (Pty) Ltd, the Proponent, as their environmental assessment practitioner to conduct an environmental and social impact assessment, in terms of the Environmental Management Act, No. 7 of 2007 for the proposed exploration of base, rare, precious, and industrial metals in the Opuwo District, Kunene Region, Namibia.

This letter is intended to engage potentially interested and affected parties (I&APs) for the Project and provides a communication channel to ECC for the ESIA process. You have been identified as an interested or affected party and therefore ECC wishes to inform you of how you can be involved with the ESIA.

The Proponent proposes to conduct early exploration activities such as geological mapping, geochemical surveys (soil and bulk samplings), geophysical surveys (airborne and ground) and reverse circulation (RC) and or diamond drilling.

Public participation is an important part of the ESIA process, as it allows the I&APs to obtain information about the proposed project and provide feedback. Communication with the I&APs occurs at various stages throughout a project lifecycle including:

- Advertising in newspapers; public notice boards;
- Distributing a Background Information Document (BID) to identified I&APs; available online at (https://ehttps://eccenvironmental.com/download/the-

ENVIRONMENTAL COMPLIANCE CONSULTANCY CC
PO BOX 91193 WINDHOEK, NAMIBIA
MEMBERS: J L MOONEY & JS BEZUIDENHOUT
REGISTRATION NUMBER: CC/2013/11404

proposed-exploration-activities-for-base-rare-and-precious-metals-and-industrial-materials-on-epls-8571-8572-8573-kunene-region-namibia/ccenvironmental.com/projects/)

- Registered I&APs will also be informed of the available draft scoping report for a review period, during this period I&APs will have the opportunity to review the draft document and raise any issues or concerns, and

I&APs who wish to register for the project can do so on the ECC website as per the link provided below: https://eccenvhttps://eccenvironmental.com/download/the-proposed-exploration-activities-for-base-rare-and-precious-metals-and-industrial-materials-on-epls-8571-8572-8573-kunene-region-namibia/ironmental.com/projects/

If you are unable to complete the registration form online, please contact us via email for assistance. info@eccenvironmental.com

ECC values community input and participation in our projects and we look forward to working with you as the project develops.

Yours sincerely,

Stephan Bezuidenhout
Environmental Compliance Consultancy
Email: stephan@eccenvironmental.com

Jessica Bezuidenhout (Mooney)
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APPENIDX F – EAP CVS

APPENDIX G – NBRI SPECIES LIST

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Abutilon angulatum (Guill. & Perr.) Mast. var. angulatum				
Abutilon fruticosum Guill. & Perr.				
Abutilon hirtum (Lam.) Sweet var. hirtum				
Acacia arenaria Schinz				
Acacia erubescens Welw. ex Oliv.				
Acacia hebeclada DC. subsp. tristis (Welw. ex Oliv.) A.Schreib.				
Acacia mellifera (Vahl) Benth. subsp. detinens (Burch.) Brenan				
Acacia nilotica (L.) Willd. ex Delile subsp. kraussiana (Benth.) Brenan				
Acacia reficiens Wawra subsp. reficiens				
Acacia senegal (L.) Willd. var. rostrata Brenan				
Acacia sieberiana DC. var. woodii (Burtt Davy) Keay & Brenan				
Acacia tortilis (Forssk.) Hayne subsp. heteracantha (Burch.) Brenan				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Acalypha ciliata Forssk.				
Acalypha segetalis Müll.Arg.				
Achyranthes aspera L. var. aspera				
Achyranthes aspera L. var. sicula L.				
Acrachne racemosa (Roem. & Schult.) Ohwi				
Acrotome fleckii (Gürke) Launert	Endemic			
Acrotome inflata Benth.				
Actiniopteris radiata (J.König ex Sw.) Link				
Adenia repanda (Burch.) Engl.				
Adenium boehmianum Schinz				
Adiantum capillus-veneris L.				
Aerva leucura Moq.				
Aizoon virgatum Welw. ex Oliv.				
Albizia brevifolia Schinz				
Alectra orobanchoides Benth.				
Aloe dinteri A.Berger	Near Endemic	Protected		
Aloe hereroensis Engl. var. hereroensis		Protected		
Alternanthera pungens Kunth				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Amaranthus thunbergii Moq.				
Ammannia senegalensis Lam.				
Amphiasma benguellense (Hiern) Bremek.				
Ansellia africana Lindl.		Protected		
Anthephora schinzii Hack.				
Anticharis senegalensis (Walp.) Bhandari				
Aponogeton azureus H.Bruggen	Endemic			
Aptosimum lineare Marloth & Engl.				
Aptosimum molle Skan				
Aptosimum welwitschii Hiern	Near Endemic			
Aristida adscensionis L.				
Aristida effusa Henrard				
Aristida hordeacea Kunth				
Aristida hubbardiana Schweick.				
Aristida meridionalis Henrard				
Ascolepis pusilla Ridl. var. pusilla				
Asparagus nelsii Schinz				
Asparagus schroederi Engl.				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Asystasia schimperi T.Anderson				
Atriplex suberecta I.Verd.				
Baccharoides anthelmintica (L.) Moench				
Baikiaea plurijuga Harms		Forestry Protected	Near Threatened	Near Threatened
Barleria cyanea S.Moore				
Barleria damarensis T.Anderson	Endemic			
Barleria elegans S.Moore ex C.B.Clarke				
Barleria lancifolia T.Anderson subsp. lancifolia				
Barleria lugardii C.B.Clarke				
Barleria mackenii Hook.f.				
Barleria senensis Klotzsch				
Berchemia discolor (Klotzsch) Hemsl.				
Bergia ammannioides B.Heyne ex Roth				
Blepharis grossa (Nees) T.Anderson	Near Endemic			
Blepharis leendertziae Oberm.				
Blepharis obmitrata C.B.Clarke				
Boscia albitrunca (Burch.) Gilg & Gilg-Ben.		Forestry Protected		

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Boscia foetida Schinz subsp. foetida				
Bothriochloa insculpta (Hochst. ex A.Rich.) A.Camus				
Brachiaria deflexa (Schumach.) C.E.Hubb. ex Robyns				
Brachiaria grossa Stapf				
Brachiaria humidicola (Rendle) Schweick.				
Brachiaria schoenfelderi C.E.Hubb. & Schweick.	Endemic			
Buchnera hispida Buch.-Ham. ex D.Don				
Bulbostylis burchellii (Ficalho & Hiern) C.B.Clarke				
Bulbostylis hispidula (Vahl) R.W.Haines subsp. pyriformis (Lye) R.W.Haines				
Bulbostylis humilis (Kunth) C.B.Clarke				
Burkea africana Hook.		Forestry Protected		
Calostephane divaricata Benth.				
Cardiospermum corindum L.				
Cardiospermum halicacabum L. var. halicacabum				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Cassine transvaalensis (Burtt Davy) Codd				
Cassytha filiformis L.				
Catophractes alexandri D.Don				
Cenchrus ciliaris L.				
Chamaecrista absus (L.) H.S.Irwin & Barneby				
Chamaecrista mimosoides (L.) Greene				
Cheilanthes marlothii (Hieron.) Schelpe				
Chloris virgata Sw.				
Chlorophytum anceps (Baker) Kativu				
Chlorophytum longifolium Schweinf. ex Baker				
Chrysopogon nigritanus (Benth.) Veldkamp				
Cienfuegosia digitata Cav.				
Cissus nymphaeifolia (Welw. ex Baker) Planch.				
Cissus quadrangularis L. var. quadrangularis				
Citrullus lanatus (Thunb.) Matsum. & Nakai				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Cleome angustifolia Forssk. subsp. petersiana (Klotzsch) Kers				
Cleome elegantissima Briq.				
Cleome foliosa Hook.f. var. lutea (Sond.) Codd & Kers				
Cleome gynandra L.				
Cleome laburnifolia Roessler	Endemic			
Coccinia rehmannii Cogn.				
Cocculus hirsutus (L.) Diels				
Colophospermum mopane (J.Kirk ex Benth.) J.Kirk ex J.Léonard		Forestry Protected		
Combretum apiculatum Sond. subsp. apiculatum				
Combretum collinum Fresen. subsp. ondongense (Engl. & Diels) Okafor				
Combretum collinum Fresen. subsp. suluense (Engl. & Diels) Okafor				
Combretum imberbe Wawra				
Combretum oxystachyum Welw. ex M.A.Lawson				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Combretum zeyheri Sond.				
Commelina benghalensis L.				
Commelina erecta L.				
Commelina forskaolii Vahl				
Commelina subulata Roth				
Commicarpus pentandrus (Burch.) Heimerl				
Commicarpus plumbagineus (Cav.) Standl. var. plumbagineus				
Commiphora africana (A.Rich.) Engl. var. africana				
Commiphora angolensis Engl.				
Commiphora crenato-serrata Engl.	Near Endemic			
Commiphora glandulosa Schinz				
Commiphora glaucescens Engl.	Near Endemic			
Catophractes alexandri D.Don				
Cenchrus ciliaris L.				
Chamaecrista absus (L.) H.S.Irwin & Barneby				
Chamaecrista mimosoides (L.) Greene				
Cheilanthes marlothii (Hieron.) Schelpe				
Chloris virgata Sw.				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Chlorophytum anceps (Baker) Kativu				
Chlorophytum longifolium Schweinf. ex Baker				
Chrysopogon nigritanus (Benth.) Veldkamp				
Cienfuegosia digitata Cav.				
Cissus nymphaeifolia (Welw. ex Baker) Planch.				
Cissus quadrangularis L. var. quadrangularis				
Citrullus lanatus (Thunb.) Matsum. & Nakai				
Cleome angustifolia Forssk. subsp. petersiana (Klotzsch) Kers				
Cleome elegantissima Briq.				
Cleome foliosa Hook.f. var. lutea (Sond.) Codd & Kers				
Cleome gynandra L.				
Cleome laburnifolia Roessler	Endemic			
Coccinia rehmannii Cogn.				
Cocculus hirsutus (L.) Diels				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Colophospermum mopane (J.Kirk ex Benth.) J.Kirk ex J.Léonard		Forestry Protected		
Combretum apiculatum Sond. subsp. apiculatum				
Combretum collinum Fresen. subsp. ondongense (Engl. & Diels) Okafor				
Combretum collinum Fresen. subsp. suluense (Engl. & Diels) Okafor				
Combretum imberbe Wawra				
Combretum oxystachyum Welw. ex M.A.Lawson				
Combretum zeyheri Sond.				
Commelina benghalensis L.				
Commelina erecta L.				
Commelina forskaolii Vahl				
Commelina subulata Roth				
Commicarpus pentandrus (Burch.) Heimerl				
Commicarpus plumbagineus (Cav.) Standl. var. plumbagineus				
Commiphora africana (A.Rich.) Engl. var. africana				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Commiphora angolensis Engl.				
Commiphora crenato-serrata Engl.	Near Endemic			
Commiphora glandulosa Schinz				
Commiphora glaucescens Engl.	Near Endemic			
Commiphora mollis (Oliv.) Engl.				
Commiphora multijuga (Hiern) K.Schum.	Near Endemic			
Commiphora pyracanthoides Engl. subsp. glandulosa (Schinz) Wild				
Commiphora saxicola Engl.	Endemic			
Commiphora steynii Swanepoel	Endemic			
Commiphora tenuipetiolata Engl.				
Commiphora viminea Burtt Davy				
Convolvulus sagittatus Thunb.				
Corallocarpus welwitschii (Naudin) Hook.f. ex Welw.				
Corchorus angolensis Exell & Mendonça				
Corchorus asplenifolius Burch.				
Cordia sinensis Lam.				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Courtoisina cyperoides (Roxb.) Soják				
Crassocephalum coeruleum (O.Hoffm.) R.E.Fr.	Endemic			
Crinum buphanoides Welw. ex Baker				
Crotalaria argyraea Welw. ex Baker				
Crotalaria barnabassii Dinter ex Baker f.				
Crotalaria pisicarpa Welw. ex Baker				
Crotalaria podocarpa DC.				
Crotalaria ulbrichiana Harms				
Croton gratissimus Burch. var. subgratissimus (Prain) Burtt Davy				
Cucumella cinerea (Cogn.) C.Jeffrey				
Cucumis africanus L.f.				
Cucumis anguria L. var. longaculeatus J.H.Kirkbr.				
Cucumis meeusei C.Jeffrey				
Cullen tomentosum (Thunb.) J.W.Grimes				
Cyperus amabilis Vahl				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Cyperus articulatus L.				
Cyperus atriceps (Kük) C.Archer & Goetgh.				
Cyperus compressus L.				
Cyperus esculentus L. var. esculentus				
Cyperus hamulosus M.Bieb.				
Cyperus marginatus Thunb.				
Cyperus schinzii Boeck.				
Cyphostemma congestum (Baker) Desc. ex Wild & R.B.Drumm.				
Cyphostemma ruacanense (Exell & Mendonça) Desc.				Near threatened
Cyphostemma uter (Exell & Mendonça) Desc.	Near Endemic	Protected		Near threatened
Dactyliandra welwitschii Hook.f.				
Dactyloctenium aegyptium (L.) Willd.				
Dalechampia scandens L. var. cordofana (Hochst. ex Webb) Müll.Arg.				
Datura inoxia Mill.				
Desmodium salicifolium (Poir.)				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
DC. var. salicifolium				
Dicoma tomentosa Cass.				
Digitaria milanjiana (Rendle) Stapf				
Digitaria remotigluma (De Winter) Clayton				
Digitaria sanguinalis (L.) Scop.				
Diospyros mespiliformis Hochst. ex A.DC.				
Diplorhynchus condylocarpon (Müll.Arg.) Pichon				
Doellia cafra (DC.) Anderb.				
Ecbolium clarkei Hiern var. clarkei				
Echinochloa pyramidalis (Lam.) Hitchc. & Chase				
Eclipta prostrata (L.) L.				
Ehretia alba Retief & A.E.van Wyk				
Ehretia namibiensis Retief & A.E.van Wyk subsp. namibiensis	Endemic			
Elaeodendron transvaalense (Burtt Davy) R.H.Archer				
Elephantorrhiza suffruticosa Schinz				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Endostemon tenuiflorus (Benth.) M.Ashby				
Enicostema axillare (Lam.) A.Raynal subsp. axillare				
Enneapogon cenchroides (Licht. ex Roem. & Schult.) C.E.Hubb.				
Enneapogon desvauxii P.Beauv.				
Entandrophragma spicatum (C.DC.) Sprague		Forestry Protected		
Enteropogon rupestris (J.A.Schmidt) A.Chev.				
Entoplocamia aristulata (Hack. & Rendle) Stapf				
Eragrostis annulata Rendle ex Scott-Elliot				
Eragrostis dinteri Stapf				
Eragrostis echinochloidea Stapf				
Eragrostis lehmanniana Nees var. lehmanniana				
Eragrostis nindensis Ficalho & Hiern				
Eragrostis pilgeriana Dinter ex Pilg.				
Eragrostis porosa Nees				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Eragrostis rotifer Rendle				
Eragrostis superba Peyr.				
Eragrostis viscosa (Retz.) Trin.				
Eremiolirion amboense (Schinz) J.C.Manning & C.A.Mannheimer	Endemic			Near Threatened
Eriocaulon abyssinicum Hochst.				
Eriospermum bakerianum Schinz subsp. bakerianum				
Erlangea misera (Oliv. & Hiern) S.Moore				
Erucastrum arabicum Fisch. & C.A.Mey.				
Euclea divinorum Hiern				
Euclea pseudebenus E.Mey. ex A.DC.				
Euphorbia chamaesycoides B.Nord.	Endemic			Vulnerable
Euphorbia crotonoides Boiss. subsp. crotonoides				
Euphorbia guerichiana Pax				
Euphorbia inaequilatera Sond. var. inaequilatera				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Euphorbia insarmentosa P.G.Mey.	Endemic			Near Threatened
Euphorbia kaokoensis (A.C.White, R.A.Dyer & B.Sloane) L.C.Leach	Near Endemic			
Euphorbia otjingandu Swanepoel	Endemic			
Euphorbia subsalsa Hiern subsp. fluvialis L.C.Leach				
Evolvulus alsinoides (L.) L.				
Exacum oldenlandioides (S.Moore) Klack.				
Faidherbia albida (Delile) A.Chev.		Forestry Protected		
Felicia alba Grau	Endemic			
Ficus capreifolia Delile				
Ficus glumosa Delile				
Ficus verruculosa Warb.				
Fimbristylis bisumbellata (Forssk.) Bubani				
Fimbristylis dichotoma (L.) Vahl				
Fimbristylis microcarya F.Muell.				
Fingerhuthia africana Lehm.				
Flaveria bidentis (L.) Kuntze				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Flueggea virosa (Roxb. ex Willd.) Voigt subsp. virosa				
Forsskaolea viridis Ehrenb. ex Webb				
Fuirena ciliaris (L.) Roxb.				
Fuirena leptostachya Oliv. forma leptostachya				
Gardenia volkensii K.Schum. subsp. spatulifolia (Stapf & Hutch.) Verdc.				
Geigeria acaulis (Sch.Bip.) Benth. & Hook.f. ex Oliv. & Hiern				
Geigeria odontoptera O.Hoffm.	Endemic			
Geigeria ornativa O.Hoffm.				
Gladiolus dalenii Van Geel subsp. dalenii				
Glinus lotoides L. var. lotoides				
Gloriosa superba L.				
Gonialoe dinteri (A.Berger) Boatwr. & J.C.Manning	Near Endemic	Protected		
Gossypium anomalum Wawra ex Wawra & Peyr. subsp. anomalum				
Gossypium triphyllum (Harv.) Hochr.				
Grewia flavescens Juss.				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Grewia schinzii K.Schum.				
Grewia subspathulata N.E.Br.				
Gymnosporia senegalensis (Lam.) Loes.				
Harpagophytum zeyheri Decne. subsp. sublobatum (Engl.) Ihlenf. & H.E.K.Hartmann				
Helichrysum candolleanum H.Buek				
Helinus integrifolius (Lam.) Kuntze				
Heliotropium giessii Friedr.-Holzh.				
Heliotropium hereroense Schinz				
Heliotropium indicum L.				
Heliotropium lineare (A.DC.) Gürke				
Heliotropium ovalifolium Forssk.				
Heliotropium steudneri Vatke				
Hermannia glanduligera K.Schum.				
Hermannia modesta (Ehrenb.) Mast.				
Hermannia rautanenii Schinz ex K.Schum.				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Hermannia tigrensis Hochst. ex A.Rich.				
Hermannia tomentosa (Turcz.) Schinz ex Engl.				
Hermbstaedtia argenteiformis Schinz				
Heteropogon contortus (L.) Roem. & Schult.				
Hexalobus monopetalus (A.Rich.) Engl. & Diels var. monopetalus				
Hibiscus calyphyllus Cav.				
Hibiscus castroi Baker f. & Exell var. castroi				
Hibiscus dongolensis Delile				
Hibiscus fleckii Gürke	Endemic			
Hibiscus palmatus Forssk.				
Hibiscus rhabdotospermus Garcke				
Hiernia angolensis S.Moore				
Hirpicium gazanioides (Harv.) Roessler				
Hydrostachys polymorpha Klotzsch ex A.Br.				
Hypertelis cerviana (L.) Thulin				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Indigastrum parviflorum (B.Heyne ex Wight & Arn.) Schrire subsp. parviflorum var. parviflorum				
Indigofera astragalina DC.				
Indigofera colutea (Burm.f.) Merr. var. colutea				
Indigofera cryptantha Benth. ex Harv. var. occidentalis Baker f.				
Indigofera flavicans Baker				
Indigofera flavicans Baker var. flavicans				
Indigofera heterotricha DC. subsp. pechuelii (Kuntze) Schrire				
Indigofera holubii N.E.Br.				
Indigofera trigonelloides Jaub. & Spach				
Indigofera trita L.f. subsp. subulata (Vahl ex Poir.) Ali				
Ipomoea adenioides Schinz var. adenioides				
Ipomoea coptica (L.) Roth ex Roem. & Schult.				
Ipomoea holubii Baker				
Ipomoea obscura (L.) Ker Gawl. var.				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
fragilis (Choisy) A.Meeuse				
Ipomoea rubens Choisy				
Ipomoea sinensis (Desr.) Choisy subsp. blepharosepala (Hochst. ex A.Rich.) Verdc. ex A.Meeuse				
Jasminum fluminense Vell subsp. fluminense				
Justicia betonica L.				
Justicia guerkeana Schinz	Near Endemic			
Justicia heterocarpa T.Anderson subsp. dinteri (S.Moore) Hedrén				
Justicia odora (Forssk.) Vahl				
Justicia platysepala (S.Moore) P.G.Mey.	Near Endemic			
Kalanchoe lanceolata (Forssk.) Pers.				
Kirkia acuminata Oliv.				
Kleinia longiflora DC.				
Kohautia caespitosa Schnizl. subsp. brachyloba (Sond.) D.Mantell				
Kohautia microflora D.Mantell				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Lagarosiphon muscoides Harv.				
Lantana angolensis Moldenke				
Lapeirousia bainesii Baker				
Lapeirousia otaviensis R.C.Foster				
Launaea intybacea (Jacq.) P.Beauv.				
Leonotis nepetifolia (L.) R.Br.				
Lessertia benguellensis Baker f.				
Letestuella tisserantii G.Taylor				
Leucas martinicensis (Jacq.) R.Br.				
Leucas pechuelii (Kuntze) Gürke	Near Endemic			
Leucosphaera bainesii (Hook.f.) Gilg				
Linzia glabra Steetz				
Lippia pearsonii Moldenke				
Litogyne gariepina (DC.) Anderb.				
Ludwigia abyssinica A.Rich.				
Ludwigia adscendens (L.) H.Hara subsp. diffusa (Forssk.) P.H.Raven				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Ludwigia leptocarpa (Nutt.) Hara				
Ludwigia octovalvis (Jacq.) P.H.Raven				
Lycium cinereum Thunb.				
Lycium schizocalyx C.H.Wright				
Macrotyloma axillare (E.Mey.) Verdc. var. axillare				
Maerua juncea Pax subsp. juncea				
Maerua schinzii Pax		Forestry Protected		
Manilkara mochisia (Baker) Dubard				
Marcelliopsis welwitschii (Hook.f.) Schinz				
Mariscus laxiflorus Turrill				
Marsdenia macrantha (Klotzsch) Schltr.				
Marsdenia sylvestris (Retz.) P.I.Forst.				
Marsilea unicornis Launert				
Megalochlamys marlothii (Engl.) Lindau				
Melhania acuminata Mast. var. acuminata				
Melinis longiseta (A.Rich.) Zizka subsp.				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
bellespicata (Rendle) Zizka				
Melinis repens (Willd.) Zizka subsp. grandiflora (Hochst.) Zizka				
Mikania sagittifera B.L.Rob.				
Mimosa pigra L.				
Momordica humilis (Cogn.) C.Jeffrey				
Momordica welwitschii Hook.f.				
Monechma cleomoides (S.Moore) C.B.Clarke				
Monechma divaricatum (Nees) C.B.Clarke				
Monechma tonsum P.G.Mey.	Endemic			
Monelytrum luederitzianum Hack.				
Monsonia senegalensis Guill. & Perr.				
Montinia caryophyllacea Thunb.				
Myrothamnus flabellifolius Welw.				
Nelsia quadrangula (Engl.) Schinz				
Nerine duparquetiana Baker				
Nerine laticoma (Ker Gawl.) T.Durand & Schinz				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Nesaea cordata Hiern				
Nidorella resedifolia DC. subsp. resedifolia				
Obetia carruthersiana (Hiern) Rendle	Near Endemic			
Ocimum americanum L. var. americanum				
Ocimum filamentosum Forssk.				
Ophioglossum polyphyllum A.Braun				
Opilia campestris Engl. var. campestris				
Orbivestus cinerascens (Sch.Bip.) H.Rob.				
Ormocarpum kirkii S.Moore				
Ornithogalum pulchrum Schinz				
Ornithoglossum calcicola K.Krause & Dinter	Endemic			
Oropetium capense Stapf				
Oryza longistaminata A.Chev. & Roehr.				
Oxalis purpurascens T.M.Salter				
Oxygonum alatum Burch. var. alatum				
Ozoroa crassinervia (Engl.) R.Fern. & A.Fern.				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Ozoroa paniculosa (Sond.) R.Fern. & A.Fern. var. paniculosa				
Pachypodium lealii Welw.	Near Endemic	Protected		
Panicum coloratum L. var. coloratum				
Panicum gilvum Launert				
Panicum lanipes Mez				
Panicum maximum Jacq.				
Panicum simulans Smook	Endemic			
Parapolydora fastigiata (Oliv. & Hiern) H.Rob.				
Pavetta schumanniana Hoffm. ex K.Schum.				
Pavetta zeyheri Sond.				
Pavonia burchellii (DC.) R.A.Dyer				
Pechuel-loeschea leubnitziae (Kuntze) O.Hoffm.				
Pegolettia oxyodonta DC.	Near Endemic			
Peliostomum leucorrhizum E.Mey. ex Benth.				
Pergularia daemia (Forssk.) Chiov. var. daemia				
Petalidium bracteatum Oberm.	Endemic			

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Petalidium cirrhiferum S.Moore				
Petalidium coccineum S.Moore				
Petalidium ohopohense P.G.Mey.	Endemic			
Petalidium rossmannianum P.G.Mey.	Endemic			
Petalidium variabile (Engl.) C.B.Clarke var. spectabile Mildbr.	Endemic			
Phragmites australis (Cav.) Steud.				
Phragmites mauritianus Kunth				
Phyllanthus maderaspatensis L.				
Plicosepalus kalachariensis (Schinz) Danser				
Pluchea bojeri (DC.) Humbert				
Pluchea lycioides (Hiern) Merxm.				
Plumbago zeylanica L.				
Pogonarthria fleckii (Hack.) Hack.				
Polygala pallida E.Mey.				
Portulaca foliosa Ker Gawl.				
Pseudocrossidium porphyreoneurum				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
(Müll.Hal.) R.H.Zander				
Psydrax livida (Hiern) Bridson				
Ptaeroxylon obliquum (Thunb.) Radlk.				
Pteris vittata L.				
Pterocarpus lucens Lepr. ex Guill. & Perr. subsp. antunesii (Taub.) Rojo				
Ptycholobium biflorum (E.Mey.) Brummitt subsp. angolensis (Baker) Brummitt				
Pupalia lappacea (L.) A.Juss. var. lappacea				
Pycreus pelophilus (Ridl.) C.B.Clarke				
Raphionacme lanceolata Schinz				
Rhigozum brevispinosum Kuntze				
Rhinacanthus kaokoensis K.Balkwill & S.D.Will.	Endemic			
Rhus ciliata Licht. ex Schult.				
Rhus marlothii Engl.				
Rhus quartiniana A.Rich.				
Rhynchosia sublobata (Schumach. & Thonn.) Meikle				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Rhynchosia totta (Thunb.) DC. var. totta				
Rogeria adenophylla J.Gay ex Delile subsp. rosea Bedigian				
Rotheca myricoides (Hochst.) Steane & Mabb. var. myricoides				
Ruellia patula Jacq.				
Ruellia prostrata Poir.				
Ruelliopsis setosa (Nees) C.B.Clarke				
Sacciolepis africana C.E.Hubb. & Snowden				
Sansevieria aethiopica Thunb.				
Sansevieria longiflora Sims var. longiflora				
Sansevieria pearsonii N.E.Br.				
Schmidtia kalahariensis Stent				
Schoenoplectiella roylei (Nees) Lye				
Schoenoplectus muricinux (C.B.Clarke) J.Raynal				
Scleria foliosa Hochst. ex A.Rich.				
Seddera schizantha Hallier f.				
Seddera suffruticosa				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
(Schinz) Hallier f. var. suffruticosa				
Seidelia firmula (Prain) Pax & K.Hoffm.				
Senna italica Mill. subsp. micrantha (Brenan) Lock				
Sesamothamnus guerichii (Engl.) E.A.Bruce	Near Endemic			
Sesamum pedalioides Welw. ex Hiern				
Sesamum triphyllum Welw. ex Asch. var. grandiflorum (Schinz) Merxm.				
Sesamum triphyllum Welw. ex Asch. var. triphyllum				
Sesbania macowaniana Schinz				
Sesuvium sesuvioides (Fenzl) Verdc. var. angustifolium (Schinz) Gonç.				
Setaria sagittifolia (A.Rich.) Walp.				
Solanum burchellii Dunal				
Solanum catombelense Peyr.				
Solanum delagoense Dunal				
Solanum tettense Klotzsch var. renschii (Vatke) A.E.Gonç.				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Sorghum bicolor (L.) Moench subsp. arundinaceum (Desv.) De Wet & Harlan				
Spirostachys africana Sond.				
Stapelia leendertziae N.E.Br.				
Sterculia africana (Lour.) Fiori var. africana		Forestry Protected		
Stipagrostis hirtigluma (Steud. ex Trin. & Rupr.) De Winter subsp. patula (Hack.) De Winter				
Stipagrostis hirtigluma (Steud. ex Trin. & Rupr.) De Winter subsp. pearsonii (Henrard) De Winter				
Striga gesnerioides (Willd.) Vatke				
Syncolostemon bracteosus (Benth.) D.F. Otieno				
Syzygium guineense (Willd.) DC. subsp. barotsense F.White				
Tacazzea apiculata Oliv.				
Talinum arnotii Hook.f.				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Tephrosia burchellii Burtt Davy				
Tephrosia oxygona Welw. ex Baker subsp. lactea (Schinz) A.Schreib.				
Tephrosia oxygona Welw. ex Baker subsp. oxygona var. oxygona				
Tephrosia purpurea (L.) Pers. subsp. leptostachya (DC.) Brummitt var. leptostachya				
Tephrosia uniflora Pers. subsp. uniflora				
Tephrosia villosa (L.) Pers. subsp. ehrenbergiana (Schweinf.) Brummitt var. daviesii Brummitt				
Terminalia prunioides M.A.Lawson				
Tetradenia riparia (Hochst.) Codd				
Tinnea rhodesiana S.Moore				
Tragus racemosus (L.) All.				
Tribulus terrestris L. var. nogalensis Chiov.				
Tripteris nervosa Hutch.	Endemic			
Triraphis purpurea Hack.				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Triraphis ramosissima Hack.				
Tristicha trifaria (Bory ex Willd.) Spreng. subsp. trifaria				
Tylosema esculentum (Burch.) A.Schreib.				
Tylosema fassoglense (Schweinf.) Torre & Hillc.				
Urochloa brachyura (Hack.) Stapf				
Urochloa oligotricha (Fig. & De Not.) Henrard				
Urochloa panicoides P.Beauv.				
Utricularia gibba L.				
Utricularia inflexa Forssk.				
Vangueria infausta Burch. subsp. infausta				
Waltheria indica L.				
Xerophyta squarrosa Baker				
Ximenia caffra Sond. var. natalensis Sond.				
Zanthoxylum ovatifoliolatum (Engl.) Finkelstein				
Zehneria marlothii (Cogn.) R.Fern. & A.Fern.				

SPECIES	ENDEMISM	PROTECTED	IUCN 1	IUCN 2
Ziziphus mucronata Willd. subsp. mucronata				
Zygophyllum spongiosum Van Zyl				