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REPORT:

SCOPING REPORT PLUS IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES ON EPL 8403, OTJOZONDJUPA REGION, NAMIBIA

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on EPL 8403, Otjozondjupa Region, Namibia

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EXECUTIVE SUMMARY

Votorantim Metals Namibia (Pty) Ltd (hereafter referred to as “The Proponent”) intends to carry out exploration activities on EPL 8403 for rare and base, precious metal and industrial minerals in the Otjozondjupa Region. The EPL lies 6km north of Kombat and can be accessed via the B1 road toward Otavi.

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 8403 include extremely low-impact exploration such as geochemical surveys, geophysical surveys and RAB, RC and diamond drilling. 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.

The geology over which the EPL falls mainly consists of the Otavi group (Damara supergroup and Gariiep complex) and a small section of Epupa, Huab and Abbabis Metamorphic Complexes. The main rock types are limestone and dolomites, as well as a smaller section with gneiss and granite. The EPL is mainly covered with rock outcrops. The groundwater vulnerability in this area is considered to be very high and groundwater recharge within this area is considered to be high. The plant diversity for this area is very high, with moderate endemism and the dominant vegetation structure for the EPL is woodland, the vegetation type is Karstveld and the EPL falls within the Savanna biome. The overall terrestrial diversity for the area is moderate to high compared to other parts of the country. The area within and surrounding the EPL has a high bird diversity status with a low to moderate bird endemism and represents an area with moderate to high mammal diversity.

Impacts with respect to airborne dust are expected to be limited to vehicular traffic and drilling activities. 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.

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 1 km 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
AIDS	Acquired immunodeficiency syndrome
AMT	Audio MagnetoTelluric
BID	Background Information Document
CIA	Cumulative Impact Assessment
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DEAF	Directorate of Environmental Affairs and Forestry
E	East
EC	Environmental Commissioner
ECC	Environmental Compliance Consultancy
ECC	Environmental Clearance Certificate
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EMA	Environmental Management Act, No.7 of 2007
EMP	environmental management plan
ENE	east - northeast
EPL	Exclusive Prospecting Licence
ESE	east - southeast
ESIA	Environmental and Social Impact Assessment
HIV	human immunodeficiency virus
I&APs	Interested and Affected Parties
IFC	International Finance Corporation
IUCN	International Union for Conservation of Nature
GDP	Gross domestic produce
GIS	Geographic Information System
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
MHSS	Ministry of Health and Social Services
mm	Millimetre
MME	Ministry of Mines and Energy
NDP	National Development Plan
NPC	National Planning Commission
NSA	National Statistics Agency
RAB	Rotary Air Blast
RH	Relative Humidity
TB	tuberculosis
WHO	World Health Organisation

1 INTRODUCTION

1.1 COMPANY BACKGROUND

Environmental Compliance Consultancy (ECC) has been retained by Votorantim Metals Namibia (Pty) Ltd (hereafter referred to as “The Proponent”) to conduct an environmental and social impact assessment (ESIA) for the exploration of rare and base, precious metal and industrial minerals in terms of the Environmental Management Act No. 7 of 2007 and its regulations of 2012. An environmental clearance certificate application will be submitted to the competent authority and the Ministry of Environment, Forestry and Tourism (MEFT) for a record of decision.

Votorantim Metals Namibia (Pty) Ltd is a wholly owned subsidiary of Nexa Resources, a Brazilian mining company specializing in zinc and aluminum. The proposed project (referred to as “the Project” herein) is located within exploration licence prospecting licence EPL 8403 and the proponent proposes to undertake mineral exploration activities on EPL 8403 for base and rare metals, industrial minerals and precious metals is located is located 6km north of Kombat in the Otjozondjupa Region. Access to the EPL can be obtained via the B1 road toward Otavi.

The proposed Project area is Shown in Figure 1.

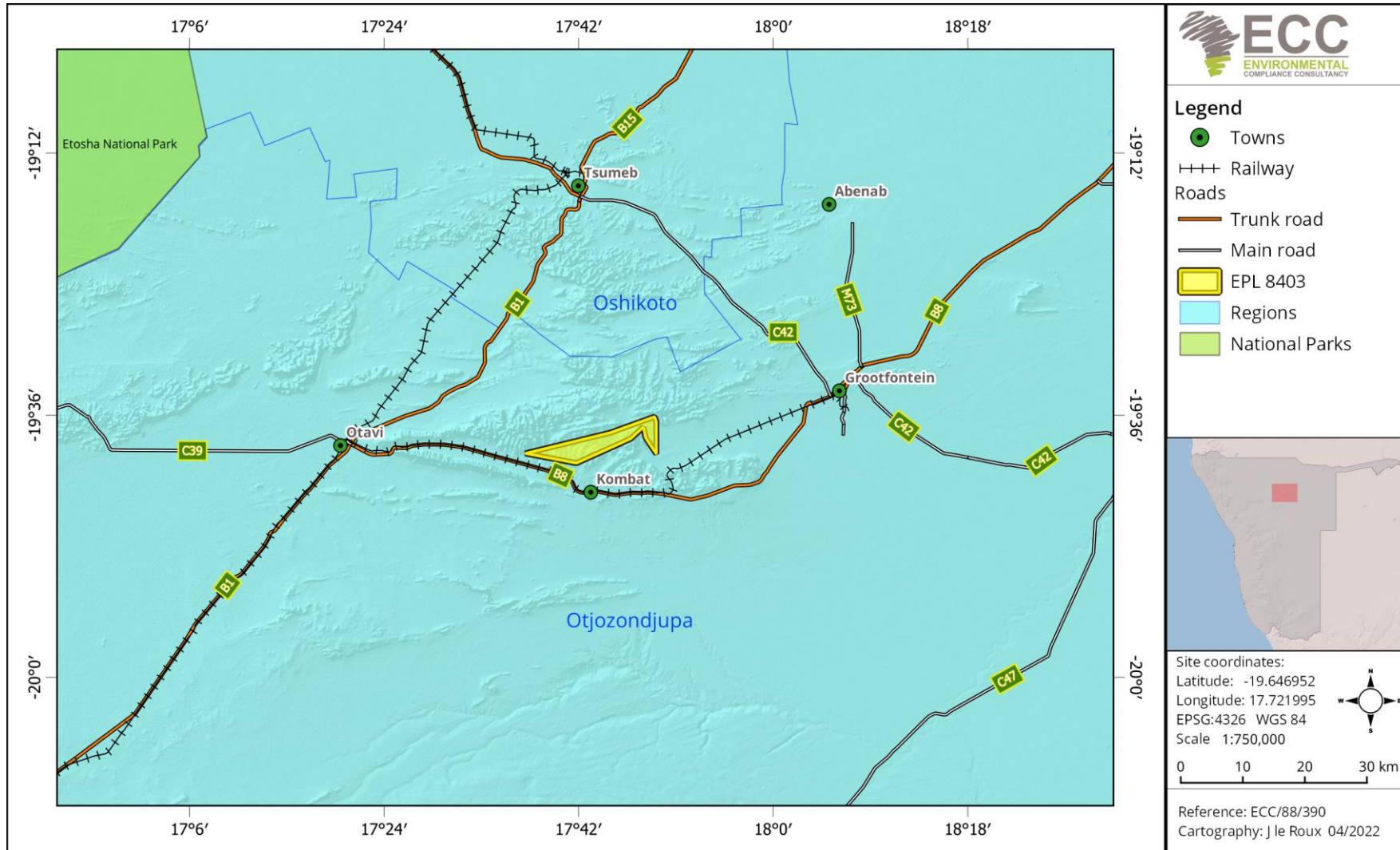


Figure 1 - Locality map of EPL 8403, Otjozondjupa Region

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 an 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
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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
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 Klein Windhoek, Namibia
 Tel: +264 81 669 7608
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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 listed in Table 2:

Table 2 - Listed activities triggered by the project

LISTED ACTIVITY	AS DEFINED BY THE ACT	RELEVANCE TO THE PROJECT
MINING AND QUARRYING ACTIVITIES	<p>(3.1) The construction of facilities for any process or activities which require a license, right, or other forms of authorization, and the renewal of a license, right, or other forms of authorization, in terms of the Minerals (Prospecting and Mining Act), 1992.</p> <p>(3.2) Other forms of mining or extraction of any natural resources whether regulated by law or not.</p> <p>(3.3) Resource extraction, manipulation, conservation, and related activities.</p>	<ul style="list-style-type: none"> - The proposed project has obtained an EPL from MME; now requires an environmental clearance from DEAF/MEFT for the search of base and rare metals, industrial minerals and precious metals. - The proponent will be undertaking exploration activities on EPL 8403, which will include geochemical surveys, geophysical surveys and RAB, RC and diamond drilling.
WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES	<p>(2.1) The construction of facilities for waste sites, treatment of waste and disposal of waste.</p> <p>(2.3) The import, processing, use and recycling, temporary storage, transit or export of waste.</p>	<ul style="list-style-type: none"> - Waste generated which will be mainly solid waste and general waste during the exploration phase will be removed by a skip and will be disposed of at the nearest landfill site. - Waste will be recycled, to the extent possible. - A portable toilet, long drop hole for a toilet or chemical toilets will be used during exploration activities by the diamond drill crew.

LISTED ACTIVITY	AS DEFINED BY THE ACT	RELEVANCE TO THE PROJECT
FORESTRY ACTIVITIES	(4.) The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in terms 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 set-up for survey and drilling teams' field camps. Clearing of large trees will be avoided.
HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE	(9.2) Any process or activity which requires a permit, licence, or another form of authorization, or the modification of or changes to existing facilities for any process or activity which requires amendment of an existing permit, licence or authorization or which requires a new permit, licence or authorization in terms of a governing the generation or release of emissions, pollution, effluent or waste.	- Portable toilets, long drop holes for toilets, or chemical toilets will be used during the exploration activities.

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.

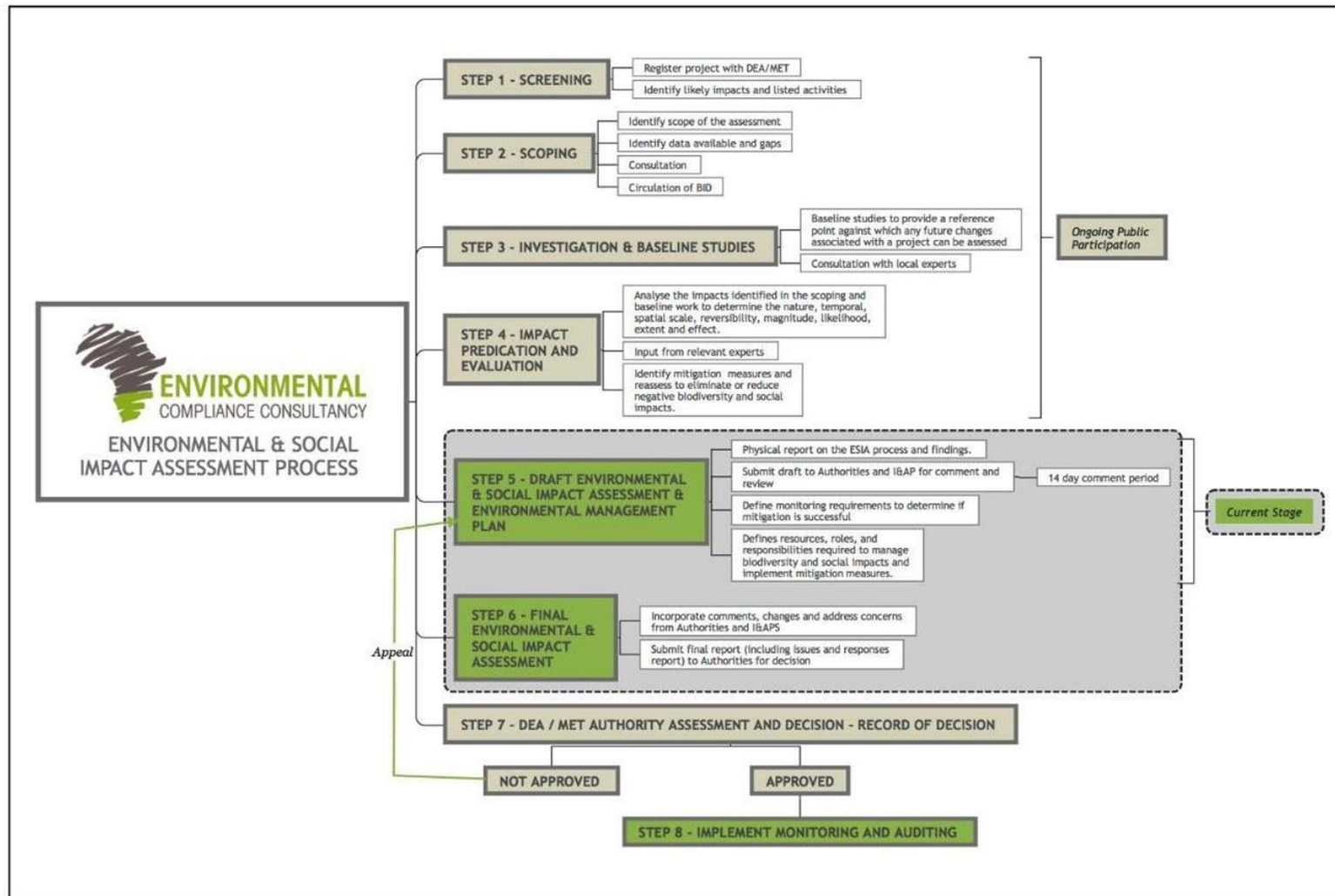


Figure 2 - ESIA Process

2.3 SCREENING OF THE PROJECT

The first stages in the ESIA process are to register the Project with the DEAF/ 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.

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 STAKEHOLDERS AND INTERESTED AND 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);
- Otjozondjupa Regional Council;
- Kombat Town Council and
- Farm owners.

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.

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 BID can be found in Appendix B.

2.6.3 NEWSPAPERS AND ADVERTISEMENTS

Notices regarding the proposed Project and associated activities were circulated in three newspapers namely the 'Republikein, Sun, and Allgemeine Zeitung' on the 8 August and 15 August 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. A public meeting is not a requirement during the public consultation process for all proposed Project. As a result, and based on the public consultation feedback and comments, a public meeting was not deemed necessary for this Project.

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 initial round of consultation are presented in Appendix C. The public was further provided an opportunity to send any comments on the draft scoping report plus impact assessment and the EMP to be included and addressed, where applicable, in the final scoping report plus impact assessment and the EMP. The public review period of seven days for these documents was from the 31st of August to the 6th of September 2022.

2.7 DRAFT EIA AND EMP

The draft report and EMP for the Project 's environmental clearance included an assessment of the biophysical and social environment, which satisfies the requirements of Step 5 (Figure 3). The EIA report documented 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 provided measures to manage the environmental

and social impacts of the proposed Project and outlines specific roles and responsibilities to fulfil the plan.

That EIA report focused on the significant impacts that may arise from the proposed Project as described in Step 4 (Figure 3). Those impacts were discussed in Chapter 7.

2.8 FINAL EIA AND EMP

This EIA report and associated appendices are available to all stakeholders on the ECC website <https://eccenvironmental.com/download/the-proposed-exploration-of-base-and-rare-metals-industrial-minerals-and-precious-metals-on-epl-8403-otjozondjupa-region-namibia/> and MEFT portal. All I&APs will be informed via email.

This EIA report and appendices are formally submitted to the Office of the Environmental Commissioner, DEAF 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 3 below identifies relevant legal requirements specific to the Project. Table 4 provides the national policies and plan. Table 5 specifies permits relevant for the Project. This chapter outlines the regulatory framework applicable to the proposed Project.

3.1 NATIONAL REGULATORY FRAMEWORK

Table 3 - 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)	<p>The constitution defines the country’s position in relation to sustainable development and environmental management.</p> <p>The constitution refers that the State shall actively promote and maintain the welfare of the people by adopting policies aimed at the following:</p> <p>“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.”</p>	<p>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).</p>
Minerals (Prospecting and Mining) Act No. 33 of 1992	<p>The Act provides for the granting of various licences related to mining and exploration.</p> <p>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.”</p> <p>The Act sets out the requirements associated with licence terms and conditions, such that the holder of a mineral licence shall comply with.</p>	<p>Exclusive Prospecting Licence EPL 8403 was issued to the Proponent in October 2021 and is valid for a period of 3 years. The proposed prospecting activity on EPL 8403 requires an EIA to be carried out, as it triggers listed activities as defined in Government notice 29 in the Environmental Management Act 2007.</p> <p>Prospecting activities in EPL 8403 shall not commence until an Environmental Clearance Certificate has been issued in accordance with the provisions of the Environmental Management Act 2007.</p>

National Regulatory Regime	Summary	Applicability to the Project
	<p>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.</p>	<p>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.</p>
<p>Environmental Management Act, 2007 (Act No. 7 of 2007) and its regulations (2012), including the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2011)</p>	<p>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.</p> <p>The Act states that an EIA should be undertaken and submitted as part of the environmental clearance certificate application process.</p> <p>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.</p>	<p>This environmental scoping report documents the findings of the scoping phase of the environmental assessment undertaken for the proposed Project.</p> <p>The process will be undertaken in line with the requirements under the Act and its regulations. Prospecting activities on EPL 8403 shall not commence until an Environmental Clearance Certificate has been issued in accordance with the provisions of the Environmental Management Act 2007.</p>
<p>Hazardous Substances Ordinance, No. 14 of 1974</p>	<p>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.</p>	<p>The planned Project will involve the handling and onboard storage of hazardous substances such as fuels, reagents, and industrial chemicals.</p>
<p>Labour Act, No. 11 of 2007</p>	<p>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</p>	<p>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</p>

National Regulatory Regime	Summary	Applicability to the Project
	of the Labour Act, No. 6 of 1992 - GN156, GG 1617 of 1 August 1997)	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.	

3.2 NATIONAL POLICIES AND PLANS

Table 4 - National policies and plans applicable to the proposed Project

Policy or plan	Description	Relevance to the r Project
Vision 2030	<p>Vision 2030 sets out the nation's development targets and strategies to achieve its national objectives.</p> <p>Vision 2030 states that the overall goal is to improve the quality of life of the Namibian people aligned with the developed world.</p>	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)	<p>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.</p> <p>The NDP5 pillars are economic progression, social transformation, environmental sustainability, and good governance.</p>	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.

Policy or plan	Description	Relevance to the r Project
Namibia's Green Plan, 1992	Namibia 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.
Minerals Policy	<p>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.</p> <p>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.</p> <p>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.</p>	<p>The planned Project conforms to the Policy, which has been considered through the ESIA process and the production of this report.</p> <p>The Proponent intends to continue to support local spending and procurement.</p> <p>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.</p>

Table 5 - 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 8403) 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 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 Hardap 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 ALTERNATIVES 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 to more invasive methods such as extensive close-spaced drilling. 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 minimized.

4.2.1 NO-GO ALTERNATIVES

Should exploration activities within EPL 8403 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.

4.3 EXPLORATION METHODOLOGY

All geological and geophysical work will be conducted by contractors. The schedule of activities is presented in Table 6.

Table 6 - Preliminary Exploration Schedule

Phase	Date	Activity Description
Phase 1: 2022	Field inspection commencement date unknown, desktop work commenced 2022	Non-invasive ground Remoting sense analysis done for target prioritization
Phase 2: 2023	Actual commencement date unknown: During 2023.	Geological mapping, followed by soil sampling in systematic grids. If results are favourable subsequent exploration will continue (diamond drilling).

The exploration activities on EPL 8403 will include the following: geochemical surveys, geophysical surveys (both ground and airborne) and drilling. Details of these methods are described below. Ground-based exploration techniques are inevitable in the search of base, rare and precious metals. Data obtained by remote-sensing data are also used to select target areas.

Diamond drilling and possible Rotary Air Blast (RAB) drilling may occur, and the number of holes and extent will be determined by the geochemical and geophysical anomalies obtained. AMT (Audio MagnetoTelluric), IP and magnetic ground surveys shall be undertaken to measure the chargeability, conductivity, and magnetic susceptibility of the rocks.

Existing tracks shall be used as far as reasonably practicable. In the event that new tracks are required, they will be developed by hand or by use of machinery, 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

The exploration activities are executed and managed from the Votorantim Exploration Office in Otavi. Field exploration activities, using techniques as discussed above, are anticipated to be carried out over the licence validity period. Remote sensing studies and planning phases for the prospecting programme will require 2-6 months. Geochemical sampling will be undertaken concurrently with geological mapping for approximately 2-6 months. Geophysical surveys will

then be carried out over a period of about two (2) months after which the Project will advance to reverse circulation or core drilling.

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 double and single cab vehicles will be used to transport workers to, from and around the site. Field activities will be organized from Otavi. Contractor's camp infrastructure includes tents and chemical toilets, which would be set up on site temporarily if agreed to by the landowner. A drill rig (track-mounted) will be brought to site for drilling, along with a water truck and supporting equipment (rods truck, water and fuel bowsers, and RC compressor) for use during drilling. Drilling equipment, diesel fuel and consumables shall be brought to the exploration site to support exploration activities when needed.

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. The Proponent prefers the use of solar panels and small-scale generators.

4.3.4 WATER SUPPLY

Water will be required for various uses including human consumption during the planned exploration activities and to support any of the exploration activities such as diamond drilling.

No water will be needed for the first stage of exploration (i.e. soil sampling), 1m³/day water will be required for geophysical surveys in the second stage of exploration and approximately a volume of 30m³ / day of water may be required for diamond drilling in the third stage of exploration. Water demand per day for the exploration Project is broken down into two usage categories. These are:

- Water for domestic use within field camps: 1m³ per day; and
- Water for exploration activities (drilling): 30m³.

Water can be sourced from two sources, these are:

SOURCE 1: Potable water will be brought to the site. During drilling operations, water shall be used, recirculated, and stored in lined collections ponds. If deemed clean and suitable will be discharged to the environment for evaporation or if not suitable for discharge will be transported to a local (insert location) and suitable waste facility for safe disposal.

SOURCE 2: Supplied directly from farmer's boreholes with their permission and compensation. Alternatively, if a demand for water arises and where many holes are to be drilled in an area, then a borehole may be drilled. In this case the required water borehole permits, and abstraction permit shall be obtained from the MAWLR.

4.3.5 WORKERS AND ACCOMMODATION

Four to possible job opportunities are foreseen during the exploration phase and workers will be sourced from the nearest towns such as Kombat. The workers will be deployed at various stages of exploration including soil sampling, geological mapping, geophysical surveys, and drilling operations.

It is envisaged that for most of the exploration programme workers will reside in Kombat and be transported to and from the site. The Proponent will provide transport. However, during the latter part of the prospecting (drilling) workers may be required to stay at the exploration site in campsites. The Proponent shall provide suitable living facilities during this period.

Should the Proponent consider setting up camps for the exploration team on-site, precaution and safe use of flammable items should be adhered to. Although fire is unlikely and probably rarely caused by the residing exploration team, there is a growing concern from farmers/ landowners regarding the occurrences of an uncontrolled veld fire. In recent years, several farmers have suffered severe losses due to a series of devastating veld fires that occurred, losing hectares of grasslands and cattle consisting of goats and sheep.

Mitigation measures have been included in the EMP, which shall be ensured and utilized by the Proponent. Accommodation options for exploration personnel on-site should always be done in consultation with the affected landowner and captured within the land access agreement.

4.3.6 WASTE MANAGEMENT

Waste produced on-site will include solid waste such as packaging material and field camps household waste. The solid residue remaining from wastewater will be buried in the soil if not toxic. Hazardous waste if any, such as (hydrocarbon contaminated soil, etc.) will be disposed of at the Walvis Bay municipal landfill site. The drill sludge is disposed of at the Otjiwarongo municipal waste disposal site. The Proponent should ensure waste is collected in categorized bins and that the waste hierarchy of (reduce, reuse, and recycle) is practiced as practically as possible.

4.3.7 WASTEWATER EFFLUENT

Wastewater (e.g., water with drill additives) used during drilling is recycled, contained and allowed to evaporate after use. Sewerage may as well, be produced on site and in the case of provision of the mobile toilets to be used on site, sewerage generated shall be managed by the toilet contractor. Wastewater that is discharged into the environment must comply with wastewater discharge specifications.

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. The Proponent has committed to restoring any historic exploration disturbance on the site if identified.

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 BASELINE DATA COLLECTION

Initial baseline studies relevant to the Project formed part of the initial environmental assessment conducted for the EPL on which the Project is situated.

5.2 LAND USE

EPL 8403 is situated to the North of Kombat in the Otjozondjupa region. This region has mixed agriculture (livestock, irrigation), game farms, tourism activities and mining.

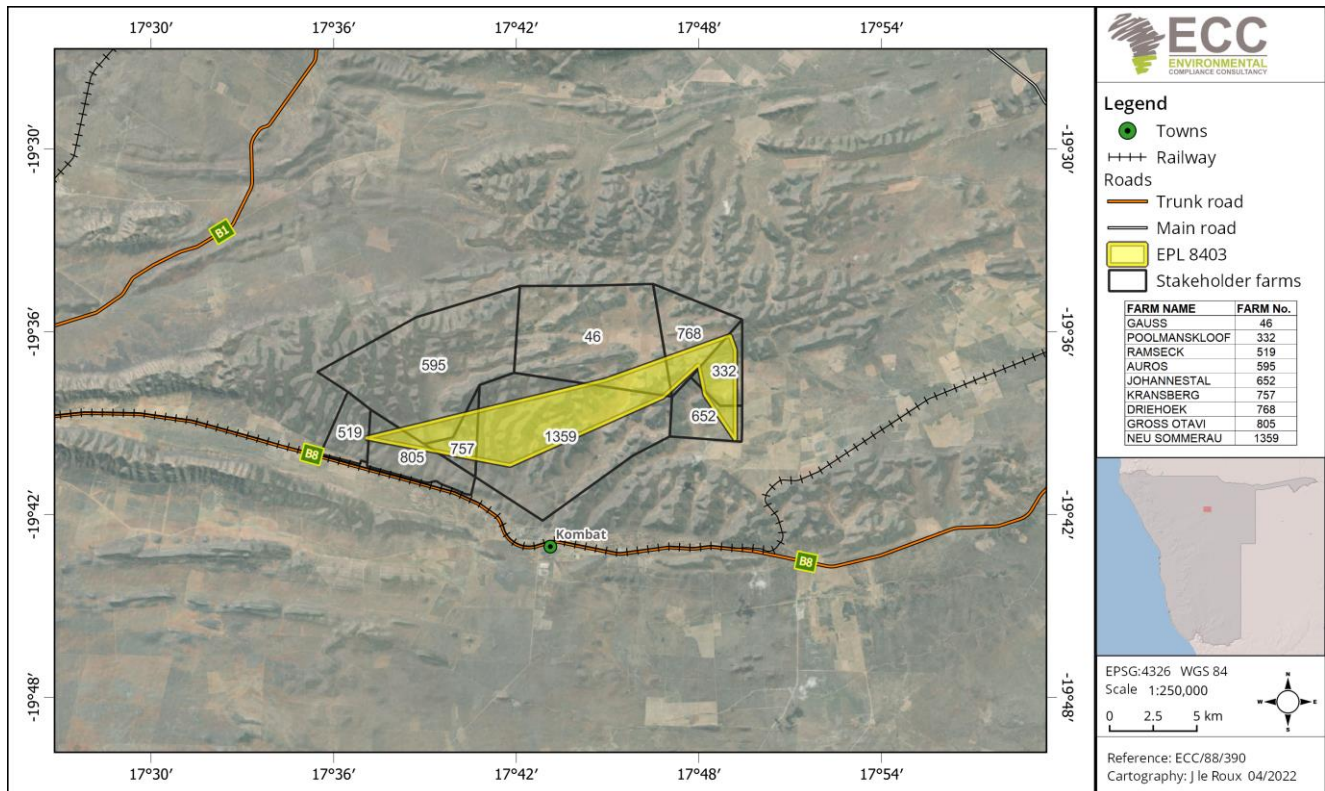


Figure 3 - Stakeholder map

5.3 CLIMATE

EPL 8403 is situated to the north of Kombat in the Otjozondjupa Region, Namibia the climatic conditions characterising the EPL area are mild summers and cool winters with the mean temperatures between 20 °C and 21 °C, mean maximum temperatures ranging between 21 °C and 31 °C and mean minimum temperatures ranging between 6 °C to 19 °C. The hottest months of the year are between October and November and the coolest months are in June and July (Bubenzer, 2002 & meteoblue, 2022).

The most humid months of the year have a humidity of approximately 70% RH, and the driest months have a humidity of approximately 10% RH. The average rainfall in this area during the year is between 500 to 600 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) shown in Figure 4.

The site has wind speeds between 0 and 28 km/h, where the months of July to October are known to have the strongest winds. Wind can occur any time of the day and the most predominant wind directions for this area are ENE, ESE and E (Figure 5) (meteoblue, 2022).

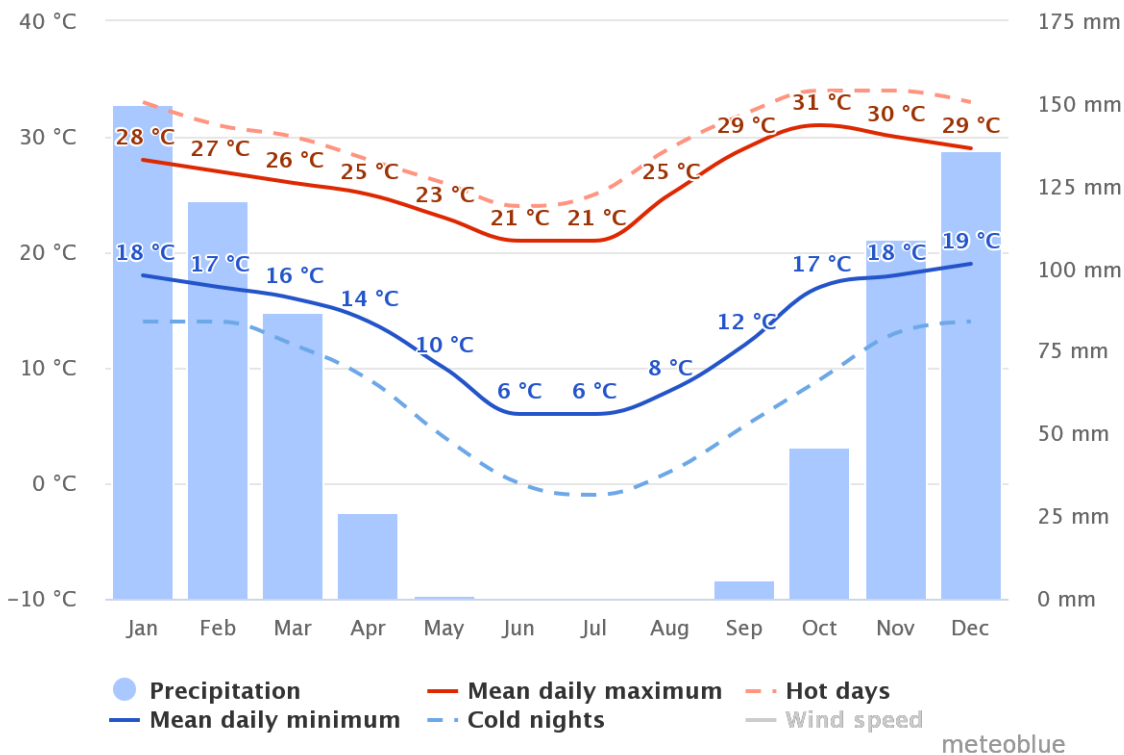


Figure 4 - Climate of the area

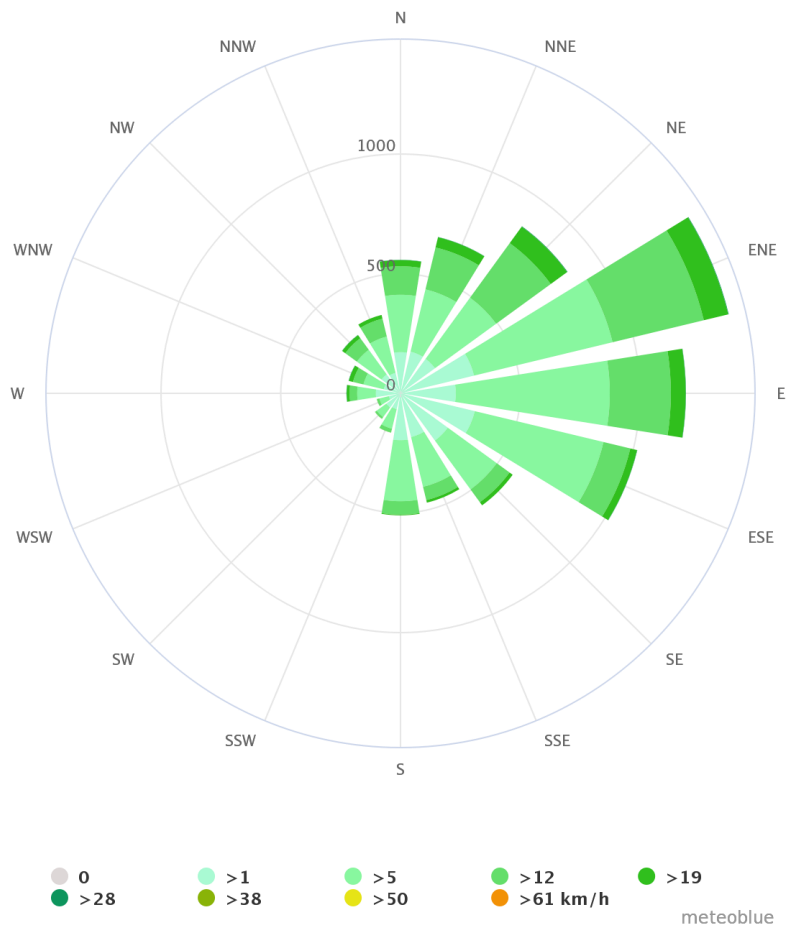


Figure 5 - Average wind speed and direction in this area

5.4 SOIL, GEOLOGY AND TOPOGRAPHY

The geology over which the EPL falls mainly consists of the Otavi group (Damara supergroup and Gariep complex) and a small section Epupa, Huab and Abbabis Metamorphic Complexes. The main rock types are limestone and dolomites, as well as smaller section with gneiss and granite (Bubenzer, 2002) shown in Figure 6.

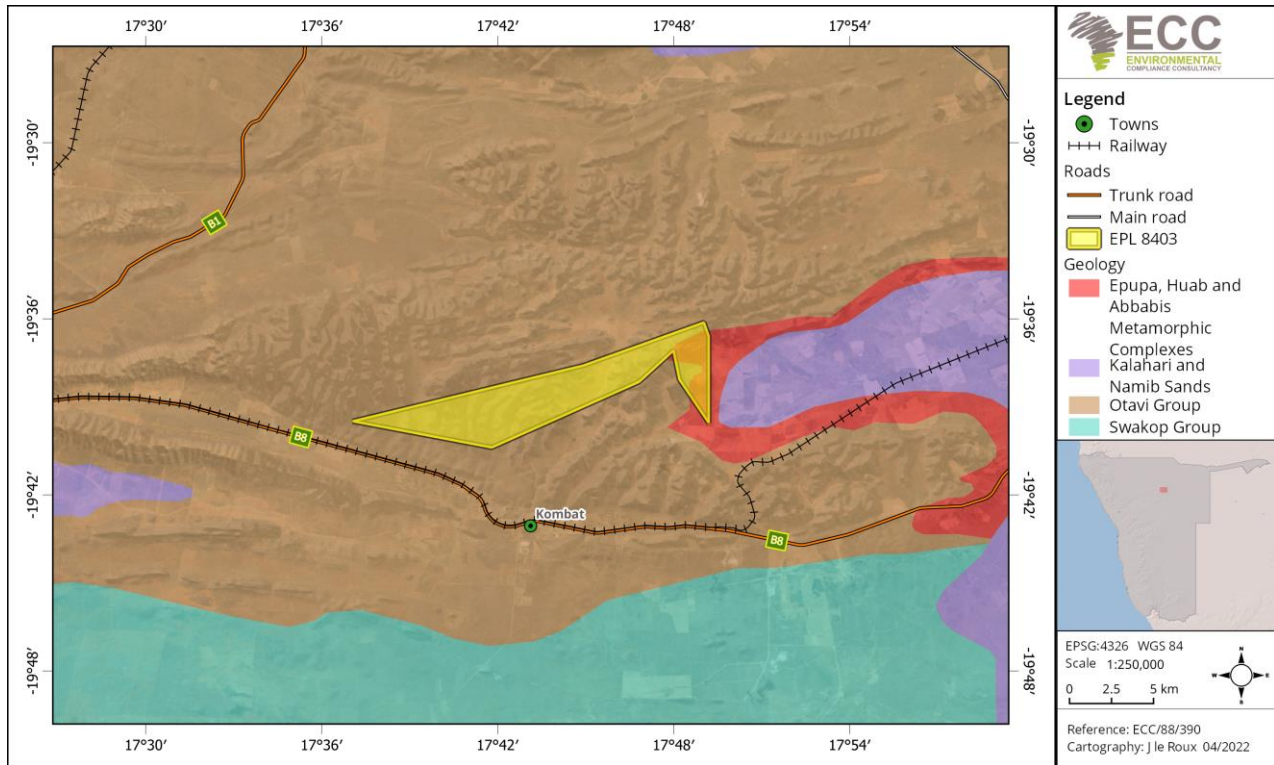


Figure 6 - Geology of the area

The topography of the EPL area is relatively rough with various hills and valleys. The elevation of the EPL varies constantly between the valleys and hills throughout the majority of the entire EPL (Figure 7). The highest point being about 2001 m above sea level and the lowest point is just below 1700 m above sea level.

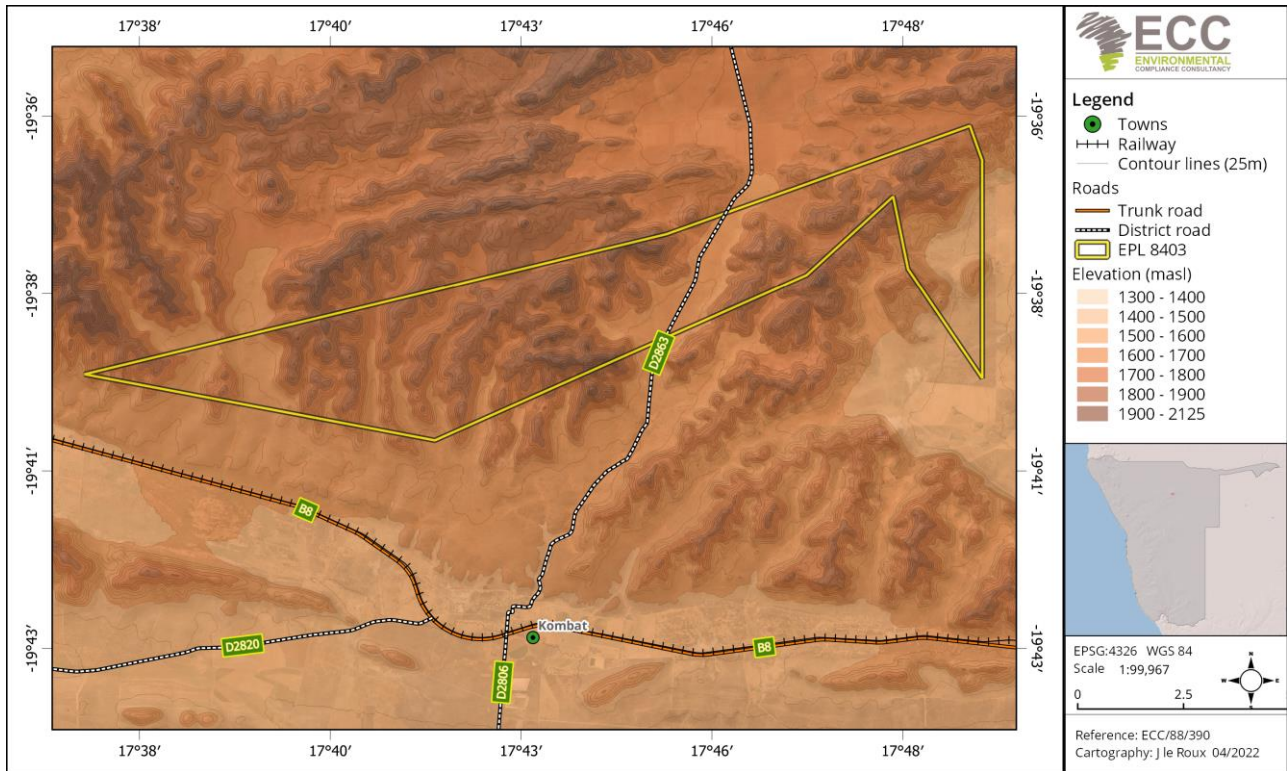


Figure 7 - Elevation of the area

Namibian soils vary a great deal on a broad scale with a great deal of variability at a local level. The EPL is mainly covered with rock outcrops shown in Figure 8.

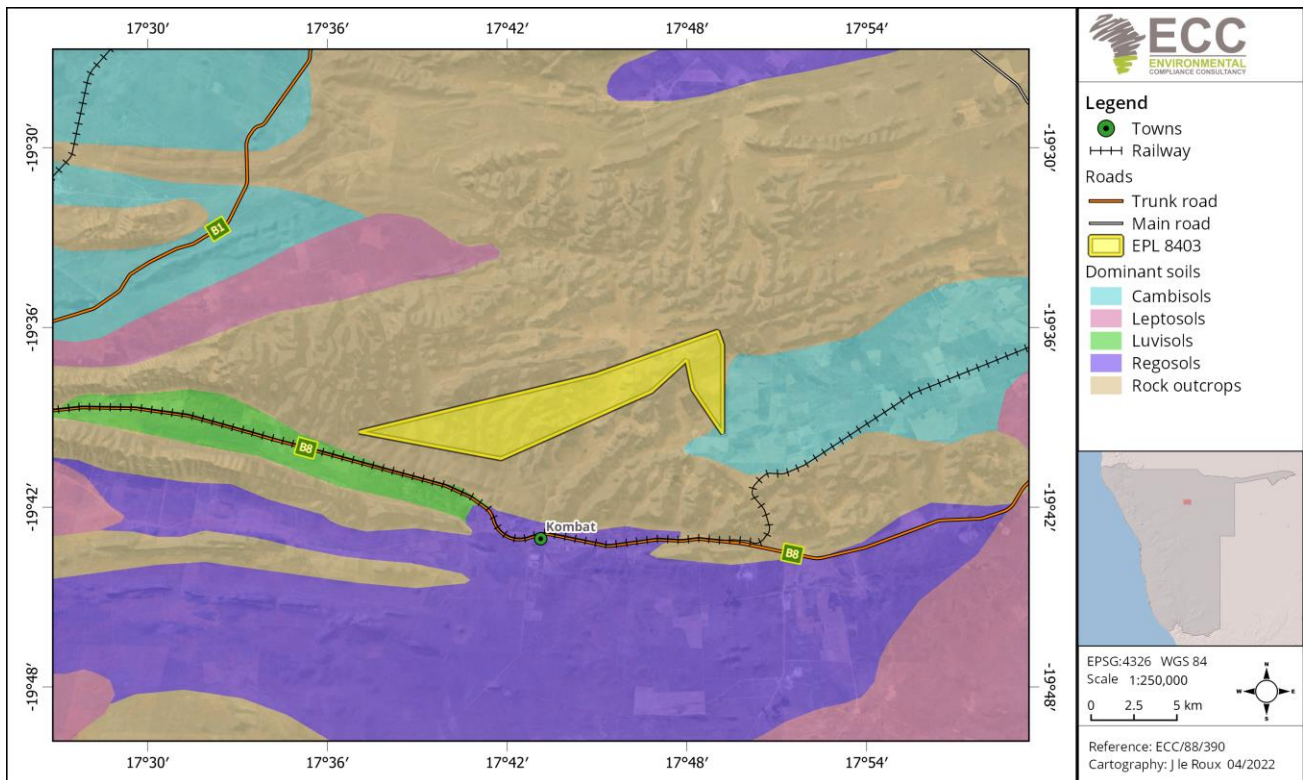


Figure 8 - Soil Characteristics of the area

5.5 HYDROGEOLOGY

According to the Namibian Monitoring Information System & Hydrological Map of Namibia (<https://na-mis.com/>), the site falls mainly over a fractured, fissured or karstified aquifer with high groundwater potential. The groundwater vulnerability in this area is considered to be very high and groundwater recharge within this area is considered to be high (4-5% of the total average rainfall). Groundwater in this area is generally of good and excellent (Group A) with some areas with poor water quality that is not suitable for human consumption (Group D) shown in Figure 9.

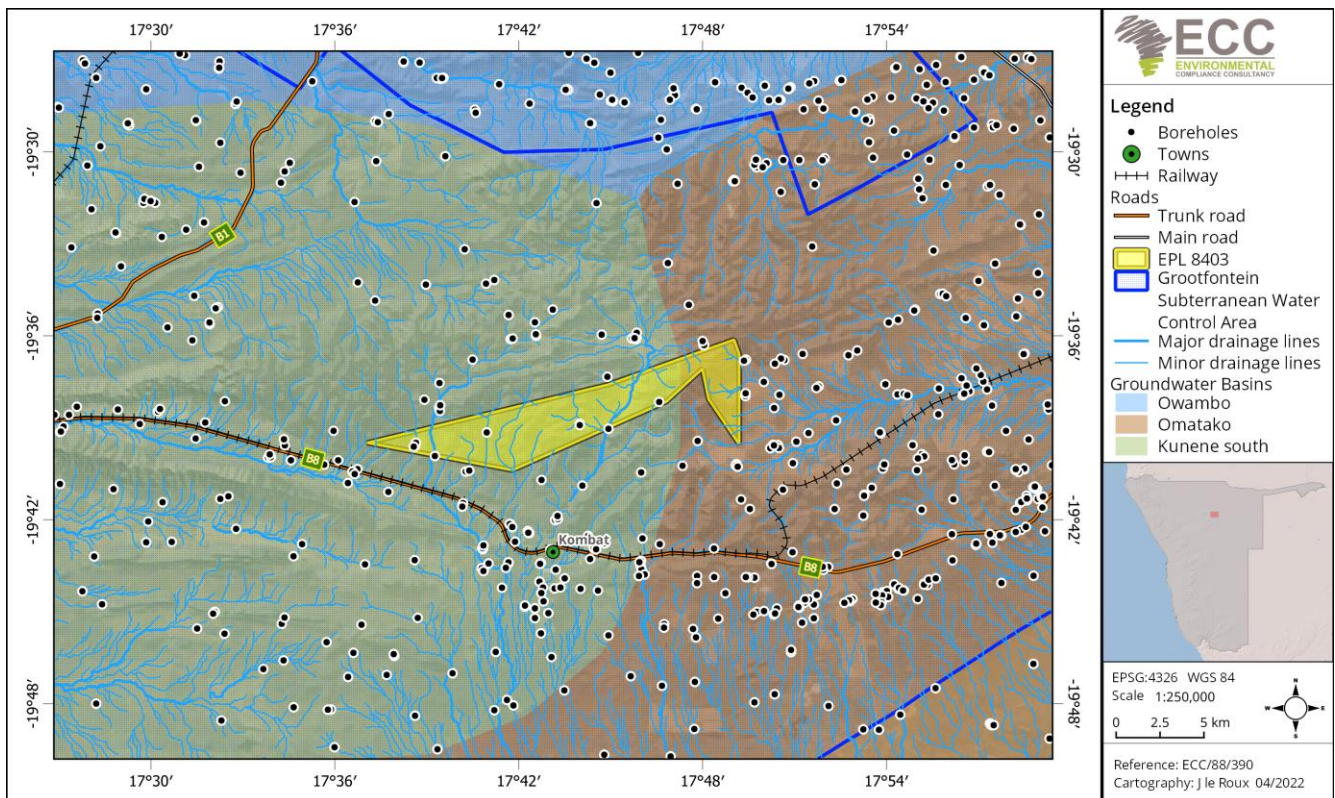


Figure 9 - Hydrology of the area

5.6 BIODIVERSITY BASELINE

5.6.1 FLORA

Vegetation in Namibia is strongly influenced by rainfall. 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 (> 500 species) for this area is very high, with moderate endemism (6 to 15 species) and the dominant vegetation structure for the EPL is woodland, the vegetation type is Karstveld and the EPL falls within the Savanna biome (Mendelsohn et al. 2002).

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 burkei* (Forestry protected), *Ficus Cordata* (Forestry protected), *Ficus sycomorus* (Forestry protected), *Obetia carruthersiana* (near-endemic), *Boscia albitrunca* (Forestry protected), *Gyrocarpus americanus* (Forestry protected), *Securidaca longepedunculata* (Forestry protected), *Maerua schinzii* (Forestry protected), *Albizia anthelmintica* (Forestry protected), *Vachellia erioloba* (Forestry protected), *Burkea africana* (Forestry protected), *Peltophorum africanum* (Forestry protected), *Philenoptera nelsii* (Forestry protected), *Erythrina decora* (Endemic and Forestry protected), *Euphorbia avasmontana* (CITES II), *Euphorbia guerichiana* (CITES II), *Schinziophyton rautanenii* (Forestry protected), *Spriostachys africana* (Forestry protected), *Sclerocarya birrea* (Forestry protected), *Elaeodendron transvaalense* (Forestry protected), *Lannea discolor* (Forestry protected), *Berchemia discolor* (Forestry protected), *Ziziphus mucronata* (Forestry protected), *Ochna pulchra* (Forestry protected), and *Cyphostemma juttae* (Nature Conservation Ordinance and Endemic) (Mannheimer & Curtis, 2009) shown in Figure 10.

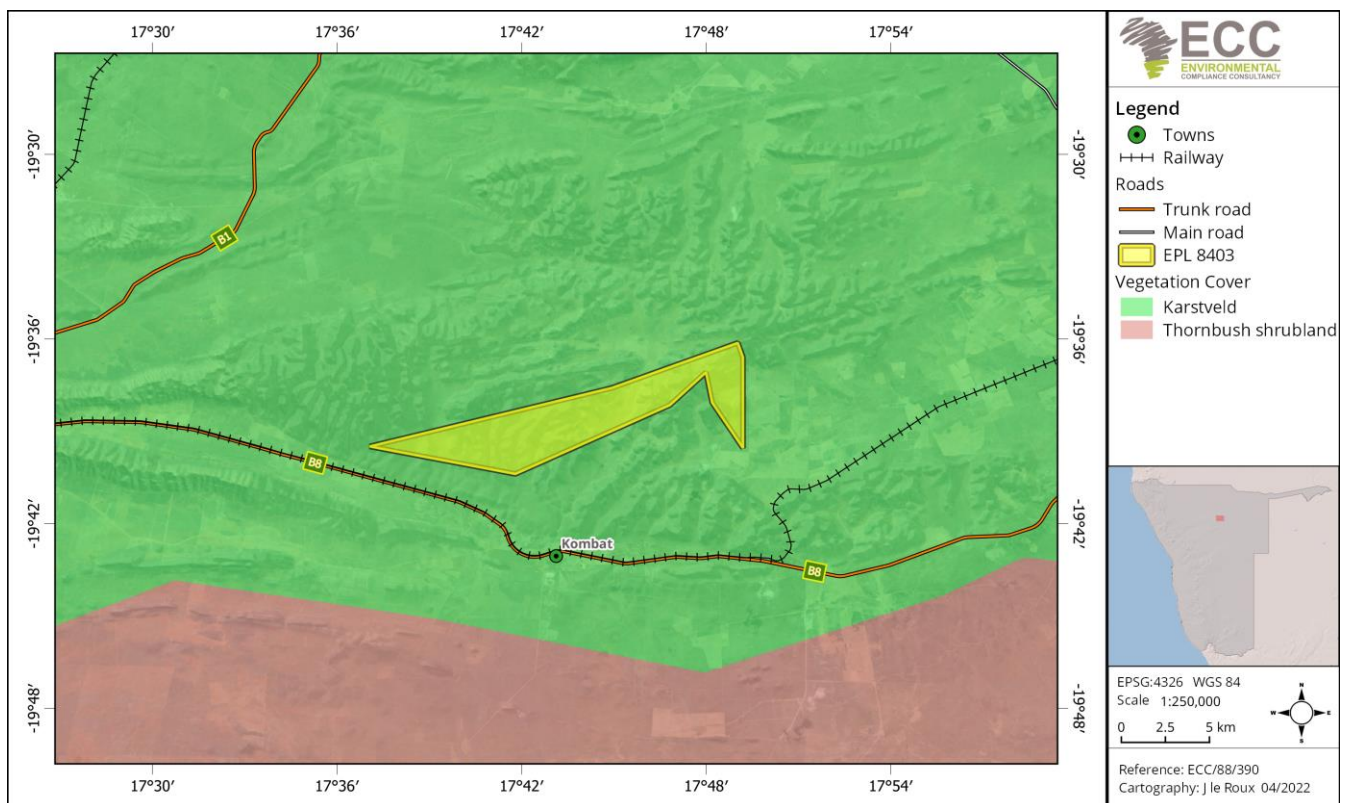


Figure 10 - Vegetation of the area

5.6.2 FAUNA

The overall terrestrial diversity for the area is moderate to high compared to other parts of the country. The area within and surrounding the EPL has a high bird diversity status of about 352 species (residents and migrants), with a low to moderate bird endemism (between 4 to 5 species) and represents an area with moderate to high mammal diversity of between 76 to 90 species (3

to 4 of these species are endemic). Five large carnivore species have been recorded in this 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 high with between 71 and 80 species, 1-8 endemic species (low); the number of observed lizard species for this area is between 24 to 31 of which 1 to 2 species are endemic (low) and the different snakes recorded are between 35 to 44 species (3 to 4 endemic species). This area also has a frog diversity of between 12 and 15 species, and also a low scorpion diversity (10 to 11 species). (Bubenzer, 2002 & Mendelsohn et al., 2002).

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).

A large number of bird species are highly migratory and pass-through Namibia sporadically, thus some of the species might be very rare to identify during the year, nonetheless could potentially be spotted within the EPL boundaries periodically. Water on-site during the rainy season might attract various water birds (either resident or migratory).

In this part of Namibia, there are numerous bird species that are either additionally protected under the regulations of the Exploitation of Marine Resources Act No. 241 of 2001, section 18 or listed within the CITES appendices. Some of these species might potentially be found or encountered near or within EPL boundaries during a given year (depending on the season and migratory patterns).

Various protected or threatened mammal species may occur on the project site of which two are classified as near threatened (Striped Leaf-nosed Bat, Brown Hyena) and four are classified as vulnerable (Cheetah, Leopard, Pangolin, Black-footed cat) according to the IUCN red list of threatened species.

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.

5.7 SOCIAL AND SOCIO-ECONOMIC BASELINE

Otjozondjupa Region is clustered into seven constituencies (Grootfotein, Okahandja, Omatako, Okakarara, Otavi, Otjiwarongo and Tsumkwe). The region's capital town is Otjiwarongo. Local authorities govern the towns in a form of municipalities. Otjozondjupa Region occupies 105 460 km² of Namibia's 824 292 km² total surface area and lies approximately 330 km northeast of the

central Khomas Region. To the west and northwest, the region is boarded by Erongo and Kunene region and Kavango East and Kavango west are northeast and Omaheke region to the south-east. Otjozondjupa is amongst six regions that predominantly have a larger male population (51.5%) than females (NSA, 2014).

Namibia is one of the least densely populated countries in the world (2.8 people per km²). Vast areas of Namibia are still without people, in contrast to some dense concentrations, such as the central-north and along the Kavango River.

The projected total population for Otjozondjupa Region was 158 237, making up 6.6 % of the country's population and an annual growth rate of 0.6 % in 2018 (NSA, 2018). In the Otjozondjupa region approximately 54% of all people live in an urban area and 46 % in rural areas in 2011. Otjiherero is the most spoken language (27 % of all households). The average household size is 3.9 people, and the literacy rate is 83 % for people older than 15 (NSA, 2017). Living in an urban environment implies better living conditions – in the Otjozondjupa Region 95 % of all households have access to safe water, only 39 % have no proper ablution facilities, 56 % have electricity for lighting and 56 % of the population depend on open fires to prepare food (NSA, 2011).

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 11). As the majority of people in the Otjozondjupa Region are living in an urban area. The majority of Namibia's population is young, as most of them are within the child-bearing age range (NSA 2014).

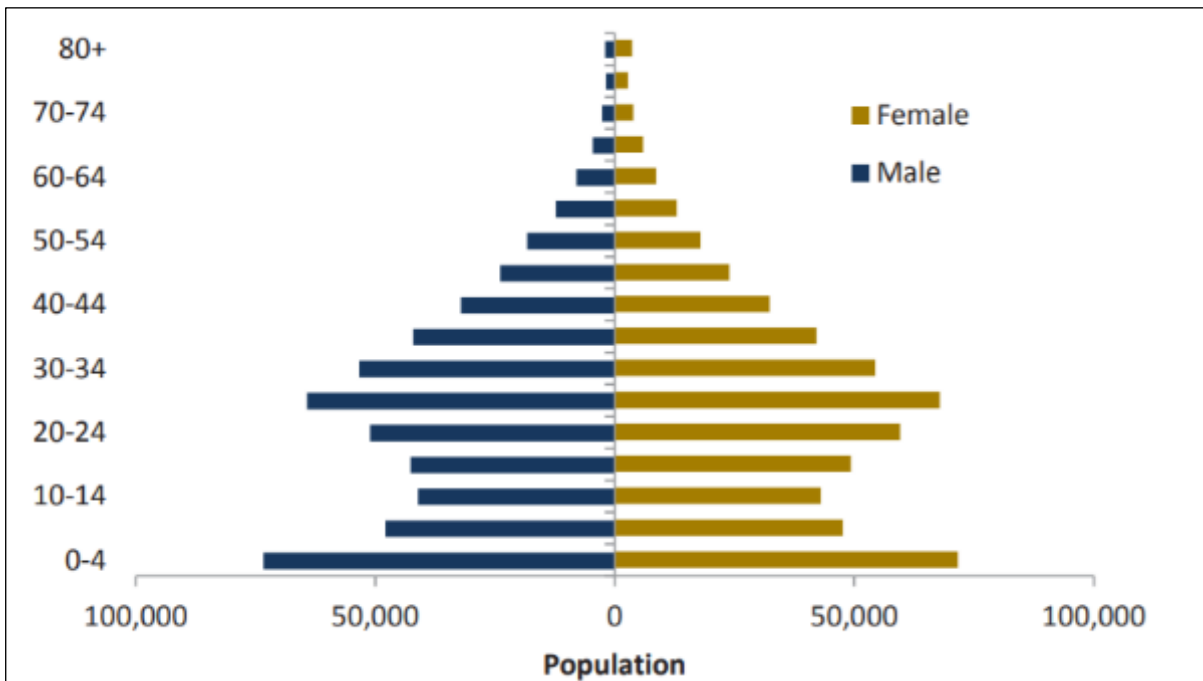


Figure 11 - Population of the area (NSA, 2011)

5.7.1 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).

5.7.2 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.

5.7.3 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).

5.7.4 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 11% of the country’s income (National Planning Commission, 2021). 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).

5.7.5 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, 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.

5.7.6 CULTURAL HERITAGE

From the Namibian GIS data and information from the Atlas of Namibia and other sources, there are no sites concerning the following periods near (within 10km) or within EPL boundaries: records from 1.8 million to 10000 years ago, past 10000 and 2000 years or within the last 2000 years (Bubenzer, 2002 & Mendelsohn et al., 2002). Regardless, there is still the potential to uncover undiscovered heritage remains. There are a few famous archeological sites near the EPL, namely Hoba Meteorite (12km), Chab Cave (14km), Graves (19km) etc.

6 IMPACT IDENTIFICATION AND EVALUATION METHODOLOGY

6.1 INTRODUCTION

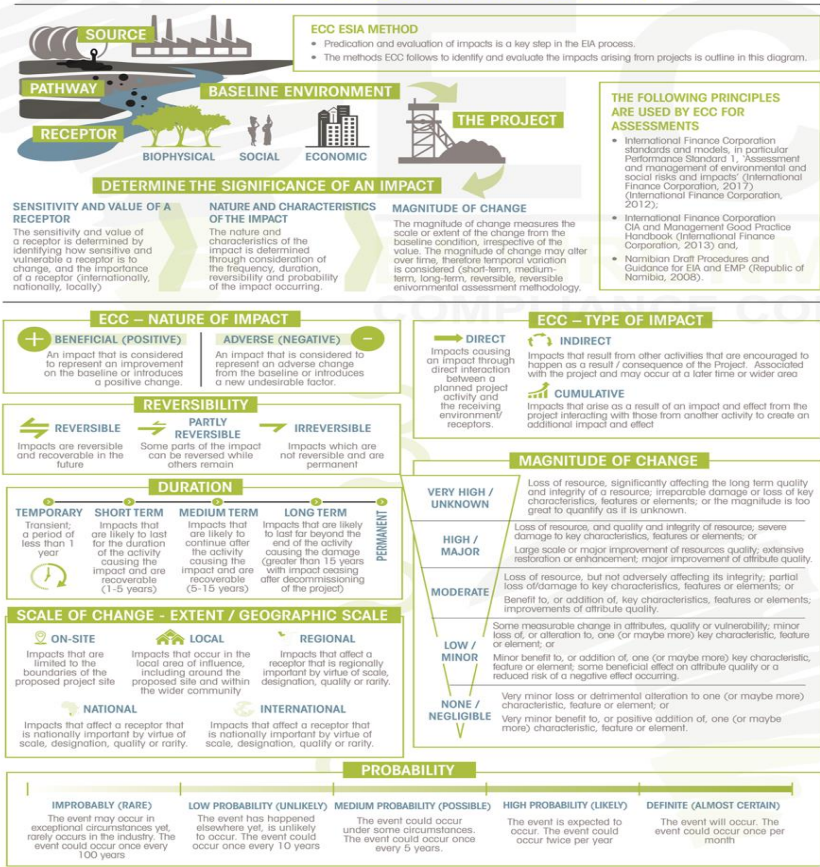
This chapters outlines ECCs method to identify and evaluate impacts arising from the proposed project. The findings of the assessment are presented in Chapter 7.

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.

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.

IMPACT PREDICATION AND EVALUATION



		SIGNIFICANCE OF IMPACT			
		Low	Minor (2)	Moderate (3)	Major (4)
SIGNIFICANCE OF IMPACT	Biophysical	Low	Minor (2)	Moderate (3)	Major (4)
	Social	Low	Minor (2)	Moderate (3)	Major (4)
	High (3)	Minor (3)	Moderate (6)	Major (9)	Major (12)
	Medium (2)	Low (2)	Minor (4)	Moderate (6)	Major (8)
Low (1)	Low (1)	Low (2)	Minor (3)	Moderate (4)	

SENSITIVITY AND VALUE		
Low	Medium	High
Of value, importance or rarely on a local scale, and with limited potential for substitution; and/or not particularly sensitive to change or has considerable capacity to accommodate a change.	Of value, importance or rarely on a regional scale, and with limited potential for substitution; and/or moderate sensitivity to change, or moderate capacity to accommodate a change.	Of value, importance or rarely 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	
Standard practices and other best practice measures for avoiding and minimizing environmental impacts. These are considered as good practice measures.	Actions undertaken by the EA process that influence the design process, through implementing design measures that would either 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.

LOW – MAJOR (BENEFICIAL)	
Low (negative) 0 - 25	Impacts are considered to be beneficial to the environment and society.
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 12 - ECC assessment methodology

6.2 ASSESSMENT GUIDANCE

- The principal documents used to inform the assessment method are:
- International Finance Corporation 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);
- International Finance Corporation CIA and Management Good Practice Handbook (International Finance Corporation, 2013); and,
- Namibian Draft Procedures and Guidance for EIA and EMP (Republic of Namibia, 2008).

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 7 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 7 - 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 avoided, 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.

LIMITATION / UNCERTAINTY	ASSUMPTION
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; aerial or remote sensing; geophysical surveys; and mineral sampling. 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 / farmland, depending on approval from farmers
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 ESIA 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 8 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 8.

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 farm owners, neighbours, visitors and tourists. Noise may have an effect on some organisms as well, though. Mitigation measures are recommended and contained in Table 8.

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 8), the significance of the impact reduces from moderate to minor.

Table 8 - Scoping assessment findings and proposed mitigation measures

ASPECT	WATER	
Description of activity	Site operations such as maintenance activities, loss of containment, accidental fuel / hydraulic fluid leaks and spills, or similar sources.	
Description of impact	Hydrocarbon leaks and spills could enter the aquifer causing contamination	
Assessment of impact	Receptor	Groundwater quality
	Effect/description of magnitude	Adverse Direct Partly Reversible Moderate Short term Regional Possible
	Value of sensitivity	Medium
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Minor (4)
Impact management/control measures	<ul style="list-style-type: none"> - Good housekeeping - Training through toolbox 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, 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 surface, banded) - 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 	
Residual impact after mitigation	Low (2)	

ASPECT	WATER	
Description of activity	Potential spillages of drill fluid, lubrication, etc. or drilling that penetrate the groundwater table.	
Description of impact	Hydrocarbon leaks and spills could enter the aquifer causing contamination	
Assessment of impact	Receptor	Groundwater quality
	Effect/description of magnitude	Adverse Indirect Partly Reversible Minor Short term Local Possible
	Value of sensitivity	Low
	Magnitude of change	Minor
Significance of impact prior to mitigation	Low (2)	
Impact management/control measures	<ul style="list-style-type: none"> - 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 - Drill system should be dug to direct any accidental spills into sumps - Extraction volumes of water shall be minimal during exploration and where possible, water from existing water sources shall be used 	
Residual impact after mitigation	Low (1)	

ASPECT	WATER	
Description of activity	Discharge and infiltration of non-contained wastewater.	
Description of impact	Wastewater can contaminate surface and groundwater.	
Assessment of impact	Receptor	Surface and ground water
	Effect/description of magnitude	Adverse Direct Partly Reversible Minor Short term Regional Unlikely
	Value of sensitivity	Low
	Magnitude of change	Minor
Significance of impact prior to mitigation	Low (2)	
Impact management/control measures	<ul style="list-style-type: none"> - Wastewater discharges will be contained - Workers will be made aware about the importance of wastewater management - Good housekeeping - Ensure prompt clean-up of spills 	
Residual impact after mitigation	Low (1)	

ASPECT	WATER	
Description of activity	Discharge and infiltration of non-contained wastewater.	
Description of impact	Wastewater can contaminate surface and groundwater.	
Assessment of impact	Receptor	Surface and ground water
	Effect/description of magnitude	Adverse Direct Partly Reversible Minor Short term Regional Unlikely
	Value of sensitivity	Low
	Magnitude of change	Minor
Significance of impact prior to mitigation	Low (2)	
Impact management/control measures	<ul style="list-style-type: none"> - Wastewater discharges will be contained - Workers will be made aware about the importance of wastewater management - Good housekeeping - Ensure prompt clean-up of spills 	
Residual impact after mitigation	Low (1)	

ASPECT	WATER	
Description of activity	Inadequate management of solid waste.	
Description of impact	Waste items and litter can pollute drainage channels.	
Assessment of impact	Receptor	Surface and ground water
	Effect/description of magnitude	Adverse Cumulative Reversible Minor Temporary On-site Unlikely
	Value of sensitivity	Low
	Magnitude of change	Low
	Significance of impact prior to mitigation	Low (1)
Impact management/control measures	<ul style="list-style-type: none"> - Good housekeeping - Training and awareness through toolbox-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 - Implement a culture of correct waste collection, waste segregation and waste disposal 	
Residual impact after mitigation	Low (1)	

ASPECT	SOIL	
Description of activity	Inadequate management of hazardous and hydrocarbon waste.	
Description of impact	Pollution of soil.	
Assessment of impact	Receptor	Soil
	Effect/description of magnitude	Adverse Direct Reversible Minor Short term On-site Possible
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	<ul style="list-style-type: none"> - Good housekeeping - Training and awareness through toolbox-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 - Implement a culture of correct waste collection, waste segregation and waste disposal 	
Residual impact after mitigation	Low (1)	

ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Description of activity	Vegetation clearing for access routes, drill pads and temporary contractor's camp.	
Description of impact	Loss / alteration of terrestrial habitats and loss of species	
Assessment of impact	Receptor	Terrestrial ecology and biodiversity
	Effect/description of magnitude	Adverse Direct Reversible Minor Short term On-site Possible
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	<ul style="list-style-type: none"> - Use existing roads for access to avoid new tracks and cut lines - Minimise clearance areas through proper planning of the exploration activities - Where necessary, rescue and relocate plants of significance - Promote revegetation of cleared areas upon completion of exploration activities 	
Residual impact after mitigation	Low (1)	

ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Description of activity	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 airborne equipment).	
Description of impact	Residing, slow-moving and nesting organisms can be disturbed.	
Assessment of impact	Receptor	Terrestrial ecology and biodiversity
	Effect/description of magnitude	Adverse Direct Reversible Minor Short term On-site Likely
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	<ul style="list-style-type: none"> - 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 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 	
Residual impact after mitigation	Low (1)	

ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Description of activity	Increased movement of vehicles, machinery and equipment.	
Description of impact	Residing and nesting organisms such as reptiles can be disturbed, injured or killed.	
Assessment of impact	Receptor	Terrestrial ecology and biodiversity
	Effect/description of magnitude	Adverse Direct Partly reversible Moderate Short term On-site Possible
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	<ul style="list-style-type: none"> - 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 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 	
Residual impact after mitigation	Low (1)	

ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Description of activity	Increased disturbance of areas with natural vegetation.	
Description of impact	Alien species and weeds can be introduced to the area.	
Assessment of impact	Receptor	Terrestrial ecology and biodiversity
	Effect/description of magnitude	Adverse Direct Reversible Minor Short term On-site Possible
	Value of sensitivity	Low
	Magnitude of change	Minor
Significance of impact prior to mitigation	Low (2)	
Impact management/control measures	<ul style="list-style-type: none"> - All project equipment arriving on site from an area outside of the project or coming from an area of 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 aware about alien species and weeds 	
Residual impact after mitigation	Low (1)	

ASPECT	SOIL	
Description of activity	Vegetation clearing	
Description of impact	Increased exposure due to possible vegetation clearance can cause soil erosion.	
Assessment of impact	Receptor	Soil
	Effect/description of magnitude	Adverse Direct Reversible Moderate Short-term On-site Possible
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	<ul style="list-style-type: none"> - 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 - During drilling oil absorbent matting 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 approved site - Limit the possibility to mix mineral waste with topsoil 	
Residual impact after mitigation	Low (1)	

ASPECT	SOIL	
Description of activity	Drilling and the use of drilling equipment.	
Description of impact	Loss of soil quality due to mixing of earth matter, trampling and compaction.	
Assessment of impact	Receptor	Soil
	Effect/description of magnitude	Adverse Direct Reversible Moderate Short term On-site Possible
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	<ul style="list-style-type: none"> - 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 - Where necessary, install diversions to curb possible erosion - Restore drainage lines when disturbed 	
Residual impact after mitigation	Low (1)	

ASPECT	TERRESTRIAL ECOLOGY AND BIODIVERSITY	
Description of activity	Accidental and uncontrolled fire	
Description of impact	Destroys grazing and kill living organisms	
Assessment of impact	Receptor	Terrestrial ecology and biodiversity
	Effect/description of magnitude	Adverse Direct Reversible Moderate Temporary Local Possible
	Value of sensitivity	High
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Moderate (6)
Impact management/control measures	<ul style="list-style-type: none"> - 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 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 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 	
Residual impact after mitigation	Minor (3)	

ASPECT	COMMUNITY	
Description of activity	Airborne surveying over the EPL, possible low flying	
Description of impact	Perceived impact from surveying activities on livestock and humans	
Assessment of impact	Receptor	Community and livestock
	Effect/description of magnitude	Adverse indirect Reversible Minor Temporary Local Unlikely
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	<ul style="list-style-type: none"> - Prior to conducting aerial 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: <ul style="list-style-type: none"> ➢ Company name, ➢ Survey dates, time and duration, ➢ Purpose of the survey, ➢ 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 measures agreed upon - Ensure appropriate supervision of all activities - Restrict surveying activities to daytime hours (7 am to 5 pm weekdays and 7 am until 1 pm on Saturday) 	
Residual impact after mitigation	Low (1)	

ASPECT	HERITAGE	
Description of activity	Drilling activities, movement of machinery and vehicles.	
Description of impact	Potential damage to cultural heritage sites.	
Assessment of impact	Receptor	Heritage
	Effect/description of magnitude	Adverse Direct Partly Reversible High Permanent On-site Possible
	Value of sensitivity	High
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Moderate (6)
Impact management/control measures	<ul style="list-style-type: none"> - Implement a Chance Find Procedure - Raise awareness about 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 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 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, and recover and remove the remains to the National Museum or National Forensic Laboratory as directed. 	
Residual impact after mitigation	Minor (4)	

ASPECT	COMMUNITY	
Description of activity	<ul style="list-style-type: none"> – Drilling activities, resulting into dust emissions – Windblown dust from exposed/cleared land during exploration activities 	
Description of impact	Visual disturbance and loss of Sense of Place.	
Assessment of impact	Receptor	Community
	Effect/description of magnitude	Adverse Direct Reversible Moderate Temporary Local Likely
	Value of sensitivity	High
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Moderate (6)
Impact management/control measures	<ul style="list-style-type: none"> – Position drill equipment in such a way that it is out of sight from human receptors – Apply dust suppression where possible – Restrict speed of vehicles (<30km/h) – 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 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 and management measures agreed upon 	
Residual impact after mitigation	Minor (4)	

ASPECT	COMMUNITY	
Description of activity	Movement of vehicles, exploration activities	
Description of impact	Create conflict with farm owners about access, leaving gates open, suspicious movements, loss of farming area, etc.	
Assessment of impact	Receptor	Community
	Effect/description of magnitude	Adverse Indirect Reversible Minor Short term On-site Likely
	Value of sensitivity	Low
	Magnitude of change	Minor
	Significance of impact prior to mitigation	Low (2)
Impact management/control measures	<ul style="list-style-type: none"> – Ensure documented permission to enter farm owners should have access to all farm 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 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 	
Residual impact after mitigation	Low (1)	

ASPECT	COMMUNITY	
Description of activity	Movement of vehicles, exploration activities	
Description of impact	Presence of exploration team can be blamed for stock theft and poaching.	
Assessment of impact	Receptor	Community
	Effect/description of magnitude	Adverse Cumulative Reversible Minor Temporary Local Unlikely
	Value of sensitivity	Low
	Magnitude of change	Low
	Significance of impact prior to mitigation	Low (1)
Impact management/control measures	<ul style="list-style-type: none"> - Develop and implement an operation manual or procedures to work on farmlands 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 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 the project manager and recorded in the incident register 	
Residual impact after mitigation	Low (1)	

ASPECT	COMMUNITY	
Description of activity	Exploration activities	
Description of impact	Triggers job creation, skills development, and opportunities for the local economy.	
Assessment of impact	Receptor	Community
	Effect/description of magnitude	Beneficial Direct Reversible Minor Short term Local Possible
	Value of sensitivity	Low
	Magnitude of change	Low
Significance of impact prior to mitigation	Low (2)	
Impact management/control measures	<ul style="list-style-type: none"> – Maximize local employment – As far as possible promote local procurement – Enhance the development of local skills where possible 	
Residual impact after mitigation	Low Beneficial	

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 proactive 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 8403, 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 drilling activities. 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.

10 REFERENCES

- Bubenzer, O. (2002). Project E1 - Atlas of Namibia. [online] Available at: http://www.uni-koeln.de/sfb389/e/e1/download/atlas_namibia/e1_download_physical_geography_e.htm.
- Institute for Health Metrics and Evaluation (IHME) 2016. Namibia- State of the nation's health: Findings from the global burden of disease. Seattle: IHME.
- IUCN (2022). The IUCN Red List of Threatened Species. [online] IUCN Red List of Threatened Species. Available at: <https://www.iucnredlist.org/>.
- Mendelsohn, J., Jarvis, A., Roberts, C., & Robertson, T. (2002). Atlas of Namibia. A portrait of the land and its people. Cape Town: David Philip Publishers.
- Mannheimer, C., & Curtis, B. (eds) (2009). Le Roux and Müller's field guide to the trees & shrubs of Namibia. Windhoek: Macmillan Education Namibia.
- meteoblue. (2022). Simulated historical climate & weather data for 19.65°S 17.7°E. [online] Available at: <https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/-19.647N17.699E> [Accessed 1 Jun. 2022].
- Ministry of Health and Social Services (MHSS) (2020). Diseases. Retrieved from www.mhss.gov.na
- Ministry of Health and Social Services (MoHSS) [Namibi] and ICF Macro.2010. Namibia Health Facility Census 2009. Windhoek, Namibia. MoHSS and ICF Macro.
- National Planning Commission. (2017). Status of the Namibian economy. Windhoek: National Planning Commission.
- Namibia Statistics Agency. (2017). Namibia Labour Force Survey 2016 Report. Windhoek: Namibia Statistics Agency.
- Namibia Statistics Agency (NSA). (2019). The Namibia labour force survey 2018 report. Windhoek: NSA
- Namibia Statistics Agency (NSA). (2017). Namibia inter-censal demographic survey 2016 report. Windhoek: NSA.
- Ulrich Oberprieler and Burger Cillié (2008). The bird guide of Southern Africa. Pretoria: Game Parks Publishing.
- United Nations Namibia (2020). Socio-Economic Impact Assessment of Covid-19 in Namibia Summary. Windhoek: UN
- World Health Organization (WHO) 2016. WHO country cooperation strategy 2010 – 2015 Namibia. Windhoek: WHO.

World population review. (2020). Namibian Population 2020 retrieved from <http://worldpopulationreview.com/countries/namibia-population/>.

APPENDIX A – ENVIRONMENTAL MANAGEMENT PLAN

APPENDIX B – BACKGROUND INFORMATION DOCUMENT

APPENDIX C – NEWSPAPER ADVERTS

4 **Republikein Sun** Allgemesine Zeitung **Market Watch** MONDAY 8 AUGUST 2022

Malawi accuses US firm of owing US\$300 bln

US company Columbia Gem House has denied accusations from Malawi that it owes more than US\$900 billion in unpaid taxes on minerals extracted in the country. In a letter dated July 26, Malawi's attorney general Thabo Chakaka Nyirenda accused the firm of evading duty on sales of rubies and sapphires mined at its Chitwadumilo Mine in Ntcheu from 2008. The letter alleges Nyala Mines Limited, which it describes as a

Columbia Gem House subsidiary, paid taxes of just US\$600 against projected US\$24 billion revenue from their Malawian operation. But the US firm this week denied any link to the alleged case. "Columbia Gem House is not, and never has been, an owner of Nyala Mines or any other entity in Malawi, nor a signatory to any lease agreement with the Government of Malawi," it said in an email to AFP. The attorney general, Nyirenda,

told AFP on Thursday that he stood by the accusations. "I stick to the contents of the letter," he said. Cabinet spokesman Gospel Kazako confirmed that the attorney general represents the "government of Malawi" in the case, refusing to provide further comment. "The issue is in the hands of legal experts," he said. But, he confirmed, "we are claiming what is due to us from Columbia Gem House."



PHOTO: OMID-ROSHAN/UNSPASH



INVITATION TO REGISTER ON RIGHT TO CARE HEALTH SERVICES NAMIBIA SUPPLIER DATABASE

Right to Care Health Services Namibia is a subsidiary of Right to Care NPC in South Africa with a presence in over eighteen countries across the world. Right to Care Health Services Namibia's mandate is to see an increase in life expectancy as well as improve access to affordable health care to patients in need. We have a renowned track record with successes spanning the globe, we primarily provide supportive innovative technical assistance and conduct joint implementation within countries. Our task is to provide support for the prevention, care and treatment of HIV and associated diseases and to create channels for affordable and accessible health care.

Right to Care Health Services Namibia would like to invite suppliers and service providers who are interested in doing business by providing products and services to the local country office. The invitation is extended to suppliers and service providers to apply for registration for the following but not limited to:

Accounting & bookkeeping services	Computer hardware & printers	Consulting services	Printing, publications, e-mail reports, newsletters	Medical commodities
Accounting systems software	Computer software	Graphics & design	Research & development	Medical medical commodities
Advertising and printing	Consulting: business management	Household appliances	Security & access control services	Audit services
Air conditioning systems & refrigerators	Consulting: business strategies	Hygiene services	Seminars & short courses	Protection & security services
Archiving services & systems	Coasters services	Media printers & e-publishing	Sound & music systems / equipment	Cleaning services
Automated management systems & hardware	Communication	Network solutions & software	Stationery supplies	Office/furniture services
Audio visual aids & equipment	Consulting: employee benefits & empowerment	Office equipment & machinery	Telecommunication equipment	Monitoring & evaluation (M&E)
Accommodation: team building, general functions, etc.	Consulting: employability & wellness	Office furniture	Workshops, training	Laboratory services
Audio visual aids, production, equipment, hardware repairs	Consulting: finance	Packaging contractors	Biotech contractors	Travel bookings
Air conditioning installation & repairs	Consulting: human resources	Post control services	Berths & conveyors	Accommodation
Alarm systems and equipment	Consulting: information management	Photography services	Environmental services	Car rentals
Banks & financial institutions	Consulting: labour relations	Blank installation & repair	Event & conferencing management	Gifts and services
Bills & savings	Consulting: legal services	Plumbing services	Signage & branding	Recruitment agencies
Building contractors & maintenance	Consulting: marketing advertising	Printing	Medical waste management	Furniture supply
Business advisory services	Consulting: public relations & services	Transport services	Waste management & disposal	Medical supplies
Cable systems, telephone	Localisation services	Medical waste removal	Medical mobile clinic	
Computer consumables	Phlebotomy services	Corporate clothing	Insurance	

Requirements:

- Provide a brief company profile
- Provide a valid company registration certificate
- Provide a valid tax clearance certificate from the Namibian Revenue Agency
- Provide a valid good standing certificate
- Provide a valid fitness certificate
- Provide at least three traceable business references preferably from reputable organizations
- Where applicable provide proof of valid professional affiliation or membership

How to apply:

Please complete all details on the supplier registration forms. Supplier registration forms will be found on our website at www.righttocare.org. All completed forms and the support documents (see requirements above) must be emailed to procurement@righttocare-namibia.org or hand delivered in a sealed envelope named RTC Health Services Namibia, 14th of August 2022.

"We are situated behind OK Foods which was The Supermarket"

NOTICE OF ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED EXPLORATION ACTIVITIES ON EPL 8403 FOR BASE AND RARE METALS, INDUSTRIAL MINERALS, AND PRECIOUS METALS WITHIN THE OTJOZONDJUPA 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. 1 of 2007 will be made as per the following:

Applicant: Votorantim Metals Namibia (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Otjozondjupa Region, Namibia

Project: The proposed located 6km north of Karibib in the Otjozondjupa Region. Access to the EPL can be obtained via the B1 between Otjomuise and Grootfontein, and the D186A.

Proposed Activities: The Proposed Votorantim Metals Namibia (Pty) Ltd proposes the exploration of base and rare metals, industrial minerals and precious metals on EPL 8403. The Proposed "Project" proposes to conduct exploration by using methods which may include geological mapping, geochemical and geophysical surveys, and RAB, RC and DD drilling.

Purpose of the review and registration period: The purpose of the review and registration period is to introduce the proposed Project and to allow registered Interested and Affected Parties (I&APs) to comment on the Background Information Document (BID) to ensure that all issues, and concerns are brought forward, captured and considered further in the assessment.

The registration period is effective from 08 to 22 August 2022. I&APs and stakeholders are required to register for the Project at <https://www.environmental.combiodiversity.com/registration/8403> and <https://www.environmental.combiodiversity.com/registration/8403>.

The team at ECC will then maintain contact with all registered I&APs to keep them informed and engaged as the EIA process develops. ECC will also provide registered I&APs relevant documents to review during the assessment process.

Environmental Compliance Consultancy
 Registration Number: 0239910464
 Waterworks 122 (Windhoek) within 11 Highway
 PO Box 91495, Otjomuise
 Tel: +264 08 000 17000
 Email: info@ecc.combiodiversity.com
 Website: www.ecc.combiodiversity.com
 Project No: ECC-88-390-REP-06

BACKGROUND

The Namibia Red Cross Society (NRCSS) is known for its work across the country both at national and grassroots levels. As the only humanitarian organization in Namibia, the National Society is committed to provide excellent humanitarian services to those affected by disasters such as droughts, COVID-19, seasonal floods, HIV and AIDS, food insecurity, road fatalities and others. Although the NRCSS headquarters is in Windhoek, it is operational in ten Regions of the country.

We are looking to contract a highly competent company to carry out the following activity in Kavango East, Mulwe Constituency, Tjova Tyre Area:
 The Drilling of One (1) borehole and Full Installation of Solar Pumping System, Two (2) Thousand Liter tanks complete with Stands, animal freshwater drinking trough and tap stands in Tjova Tyre area in Kavango East Region, Mulwe Constituency.

SELECTION OF SUPPLIER AND CONTRACTING CONDITIONS

The supplier is expected to possess the following expertise:

1. Substantial and specific working experience in borehole drilling
2. Proven references in similar scope of work.

Supplier have to:

1. Buy bid document @ N\$ 600.00.
2. Submit the bid document before the closing date with a proof of payment.

Deadline: 19 August 2022

For further queries contact us at +264 61413750 or via email to Michael Nuwusab National Logistic Coordinator, michael.nuwusab@redcross.org.na.

How your brain will help you Save during the cost of living crisis

The cost-of-living crisis continues. Inflation rates are up yet again, and expected to rise further. And as energy, transport, fuel and groceries all get more expensive, there are fears that millions of households globally are experiencing financial difficulties.

CATHRINE JANSSON

Boyd - A recent survey suggests, perhaps unsurprisingly, that low prices will become increasingly important to consumers in the coming month. Some will still take perceptions of good value and customer service into account, but for the majority, price will be the key factor when it comes to deciding where to shop and what to buy. Research in neuroscience suggests that our brains are extremely well suited to helping achieve this. Making difficult decisions

involves different parts of the brain working together towards a conclusion. Typically, when people make decisions about buying something, they engage in one of two processes, using what psychologists call a "valuation system" or a "choice system".

VALUATION SYSTEM

The valuation system involves the ventromedial prefrontal cortex (which processes notions of risk and fear) and the reward system of the basal forebrain, and ranks options based on their perceived

worth and possible reward.

So imagine you're at the supermarket shopping for food, with a limited budget. You could either buy a box of eggs from chickens housed in crowded barns for £1.20, or a box from free range chickens which costs £2.20. You may well end up buying the cheaper eggs, even though you know that it is ethically preferable for chickens to roam freely.

In this instance, you based the choice entirely on the price, because the valuation system nudges people towards the option that will give them the best and most immediate reward - in this case, saving money.

CHOICE SYSTEM

The choice system meanwhile, is part of the work of the dorsolateral pre-



“But while ... the companies we rely on raise their prices, at least our brains are hard-wired to help us make decisions that go some way to protect us from the ravages of the current economic climate.**”**

frontal cortex, which (putting it very broadly) is concerned with reasoning, memory and making decisions as well as the dorsal anterior cingulate cortex, and parietal regions.

So if you're still at the supermarket, with the eggs in your basket, you consider buying a new sugar bowl, to replace a broken one. You find one that appeals, but it is also rather expensive, making you hesitate.

What happens in such situations is that when faced with uncertainty, the prefrontal cortex becomes increasingly active and inhibits impulsive decisions, which in turn enforces a natural aversion to loss - in this case losing money. Meanwhile, another

part of the brain, the dorsal anterior cingulate cortex, helps to improve decision making by delaying your response to give you time to process alternative options, such as looking for a more affordable bowl.

RISK AVERSION

Both systems demonstrate that when we are thinking about prices and costs, our brain biology has ways of ensuring we look for an alternative that we can afford - or at least gives us better value for money.

A natural aversion to risk helps consumers facing financial uncertainty to choose the cheaper of two similar products rather than being persuaded by a fancy label or by habit. Paying more

instance, become "risk-seeking" in the face of loss, meaning that they may take unnecessary risks.

Partially this is because elevated dopamine responses make people focus on immediate and potentially high rewards.

Someone who is feeling stressed and looking for a loan could easily end up clicking on a deal that could end up making their financial situation far worse. There is also evidence that stress causes people to factor completely irrelevant information (like comparing random numbers to an interest rate) into their decision making process.

Overall then, decision making is a complex process, and as everything gets more expensive, price is likely to become an increasingly dominant factor.

But while politicians argue, and the companies we rely on raise their prices, at least our brains are hard-wired to help us make decisions that go some way to protect us from the ravages of the current economic climate.

- The Conversation
* Cathrine Jansson-Boyd is a reader in consumer psychology at the Anglia Ruskin University.

Deutsche Bank to expand team in South Africa

LONI PRINSLOO

Deutsche Bank AG is beefing up its investment banking team and services in South Africa as part of a plan to grow on the continent.

The German lender has hired a senior corporate

originator in South Africa - someone who sources clients and deal opportunities - and intends to further add to the team, country head Saloshni Pillay said in an interview. The focus is to build a deals hub for Africa as a whole, she said.

"We will continue to build on what we have with a select number of clients and deliver to them," said Pillay. "Then we have identified a broader client base that we will be targeting, really to build a pipeline of deals and work for 2023-2024."

Pillay was hired by Deutsche earlier this year from Absa to rebuild after staff numbers fell during two waves of global reorganisations the lender carried out in 2018 and 2019. Early wins included advising on a US\$2 billion deal when DP World acquired Imperial Logistics.

The South African office employs 68 people, Pillay said. Deutsche has had a presence in the country since 1979.

GROWTH OPPORTUNITY

Deutsche has identified Africa as a growth opportunity, and will help clients looking to invest there or incumbents

seeking to access different banking services, co-chief executive officer for the Middle East and Africa, Keat Howing, said in the same interview.

The plan will be based on a strategy rolled out in Asia over the past 20 years, he said. "There is huge interest in the continent when it comes to sectors like commodities, food, and energy, and we want to follow our clients and serve their cross-border needs," Howing said.

"We have identified our global clients that also have subsidiaries in South Africa, and Saloshni's team is talking to those clients."



Deutsche Bank is in talks with African nations about issuing bonds and debt restructuring. PHOTO: REUTERS

Deutsche is in talks with African nations about issuing bonds and debt restructuring, Howing said, as countries look to shore up finances to deal with the impact of Covid-19 and Russia's invasion of Ukraine.


The bank has gone from the 13th-biggest regional bond arranger in 2021 to number four this year, according to data compiled by Bloomberg. Last month, it assisted with a US\$1.5 billion loan facility for Transnet.

Votorantim Metals

NOTICE OF ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED EXPLORATION ACTIVITIES ON EPL 8403 FOR BASE AND RARE METALS, INDUSTRIAL MINERALS, AND PRECIOUS METALS WITHIN THE OTJOZONDJUPA REGION, NAMIBIA.

Environmental Compliance Consultancy (ECC) hereby gives notice to the public that an application for an environmental clearance certificate in terms of the Environmental Management Act, No. 1 of 2017 will be made as per the following:

Applicant: Votorantim Metals Namibia (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy (ECC) (Otjozondjupa Region, Namibia)



Project: The proposed location lies north of Grootfontein in the Otjozondjupa Region, Namibia to the EPL can be obtained via the SR between Otavi and Grootfontein, and the D2963.

Proposed Activities: The Applicant Votorantim Metals Namibia (Pty) Ltd, proposes the exploration of base and rare metals, industrial minerals and precious metals on EPL 8403. The Applicant proposes to conduct exploration by using methods which may include geological mapping, geochemical and geophysical surveys, and EAB, EC and ED drilling.

Purpose of the review and registration period: The purpose of the review and registration period is to introduce the proposed Project and to allow registered Interested and Affected Parties (IAPs) to comment on the Background Information Document (BID) to ensure that all issues, and concerns are brought forward, captured and considered further in the assessment.

The registration period is effective from 08 to 22 August 2022. IAPs and stakeholders are required to register for the Project at: <https://www.ecm.gov.na> and also download the proposed registration of Interest and Concerns (RISC) form at: <https://www.ecm.gov.na>

The team at ECC will then maintain contact with all registered IAPs to keep them informed and engaged as the EIA process develops. ECC will also provide registered IAPs relevant documents to review during the assessment process.

Environmental Compliance Consultancy
 Register Office: Waterloo, CC 0850 9130
 Main Office: 16 St. Bonaventura St. Muckleneuburg, PO Box 1435, 1146 Muckleneuburg
 Tel: +264 81 483 7148
 E: info@ecc.com.na
 Website: www.ecc.com.na
 Project ID: ECC-88-390-REP-06-01

VACANCY

POWERCORP (PTY) LTD

POSITION TITLE: COMPANY SECRETARY

PURPOSE: Provide company secretarial services and legal advice to the Board of Directors and ensure that decisions of the Board of Directors are implemented and communicated, as applicable. Provide professional support and advice to the Corporation's Executive Management to ensure efficient administration, with regard to ensuring compliance with corporate governance principles, statutory and regulatory requirements.

QUALIFICATIONS AND EXPERIENCE:

- Bachelor of Law (LLB) or equivalent qualification
- Certification as a chartered secretary is an added advantage
- A minimum of five (5) years practical working experience in corporate environment, with working knowledge and understanding of company's business and Corporate Governance.
- Knowledge of statutory and regulatory requirements.
- Knowledge of Contract Law will be an added advantage.

CONTACT DETAILS: A comprehensive CV should be emailed to the following address: vacancies@powercorp.co.na

CLOSING DATE: 19 August 2022 at 15:00

1. Sufficiently qualified applicants from the designated groups defined in the Affirmative Action Act (1998) and disabled persons are encouraged to apply.
2. Shortlisted candidates will be contacted.

OFFSHORE SOLUTIONS

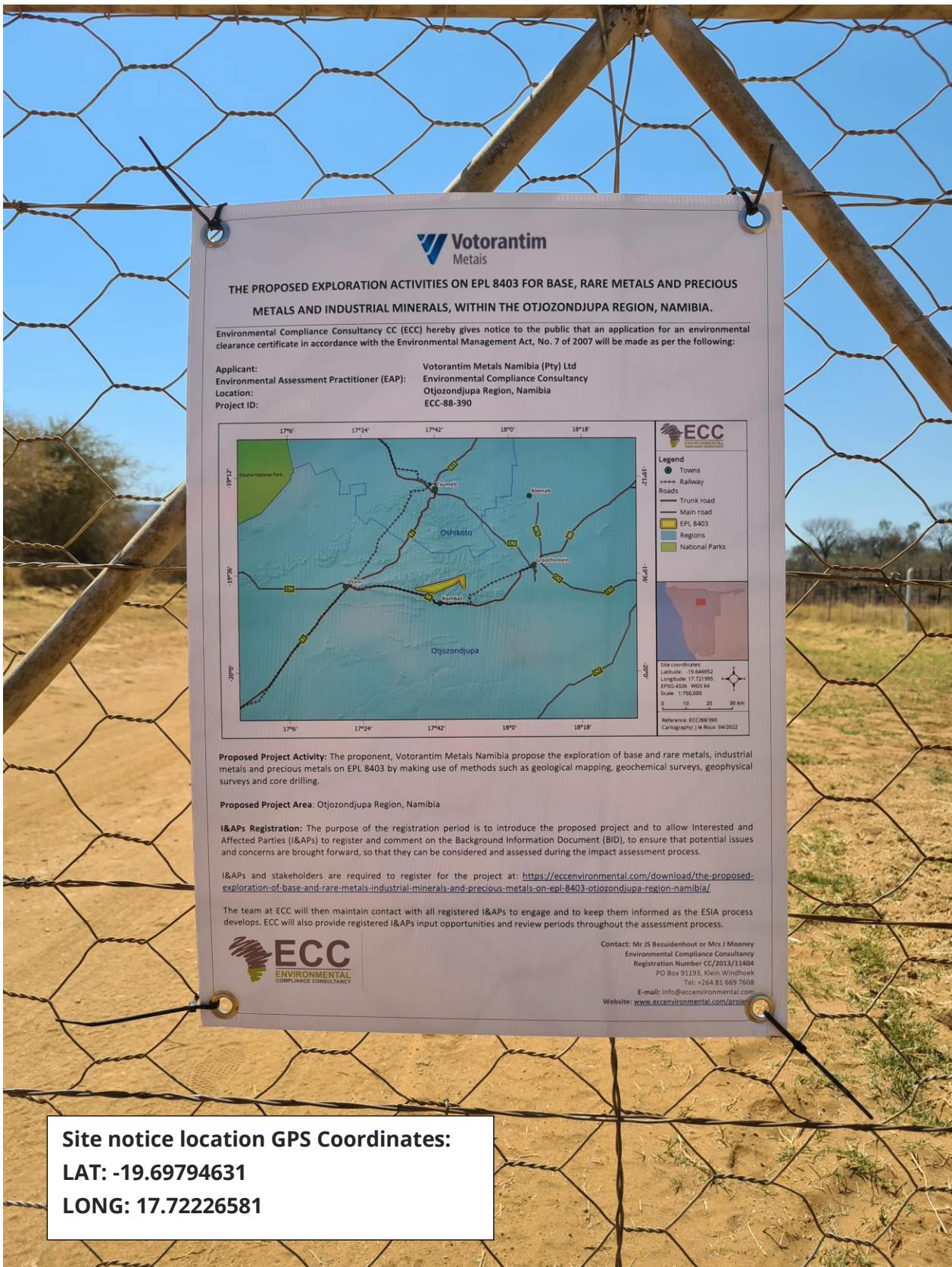
African countries talking to the International Monetary Fund will most likely commit to increasing local production to cut imports and boost exports, Howing said.

There is also work underway to bolster Deutsche's private banking and wealth business in Africa, Pillay said.

"Clients are looking for investment and solutions to go offshore, and to diversify away from certain currencies," she said.

The lender has hired HSB Banker Paul Sayers as head of its informational private bank in Africa. Three other senior relationship and investment managers from HSB, who worked with Sayers, also joined.

APPENDIX D – SITE NOTICES



Site notice location GPS Coordinates:
LAT: -19.69794631
LONG: 17.72226581



APPENDIX E – EAP CVS