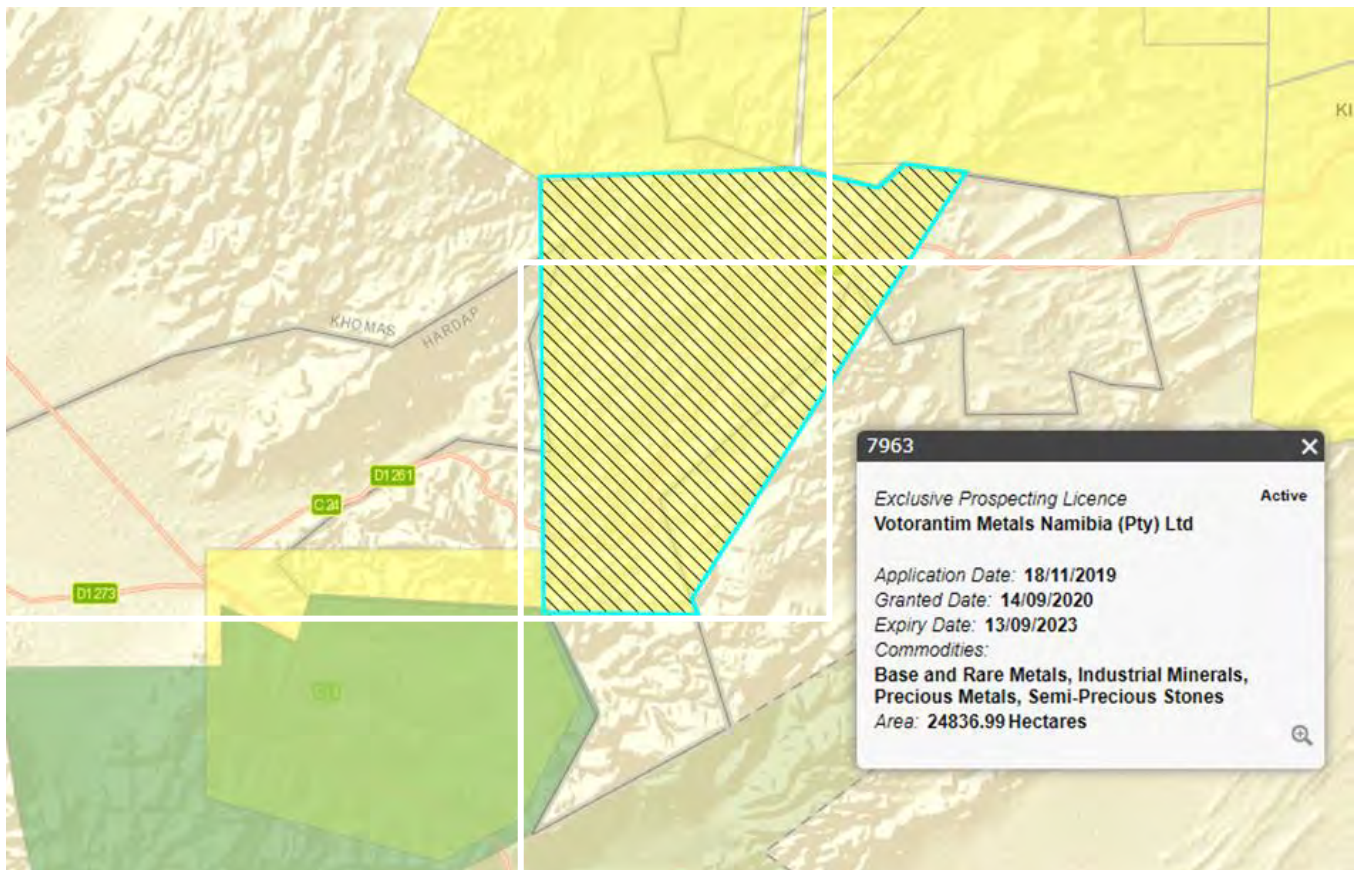




Submitted to: Votorantim Metals Namibia
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REPORT:

SCOPING REPORT PLUS IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES ON EPL 7963, HARDAP/KHOMAS REGION, NAMIBIA

PROJECT NUMBER: ECC-99-398-REP-08-A

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DATE: APRIL 2023



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on EPL 7963, Hardap/Khomas Region, Namibia

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Client Representatives: Mr Fernando Baia

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TERMS AND ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
AIDS	Acquired immunodeficiency syndrome
AMT	Audio MagnetoTelluric
BID	Background Information Document
BoN	Bank of Namibia
CIA	Cumulative Impact Assessment
CITES	Convention on the International Trade of Endangered Species
DEA	Directorate of Environmental Affairs
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
EPL	Exclusive Prospecting Licence
ESIA	Environmental and Social Impact Assessment
GDP	Gross domestic product
HIV	Human immunodeficiency virus
I&APs	Interested and Affected Parties
IFC	International Finance Corporation
IHME	Institute for Health Metrics and Evaluation
IP	Induced polarization
IUCN	International Union for the Conservation of Nature
MAWLR	Ministry of Water, Agriculture and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
MME	Ministry of Mines and Energy
NDP	National Development Plan
NSA	Namibia Statistics Agency
RAB	Rotary Air Blast
RC	Reverse Circulation
TB	tuberculosis
WHO	World Health Organization

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 mining of rare and base metals, industrial minerals and precious and semi-precious metals 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 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, nickel and aluminium. The proposed project (referred to as “the Project” herein) is located within exploration licence prospecting licence EPL 7963 and the proponent proposes to undertake mineral exploration activities on EPL 7963 for rare and base metals, industrial minerals and precious and semi-precious metals is located at about ±87 km, southwest of Rehoboth in the jurisdictional region of both Hardap and Khomas region. Certain sections of Khomas and Hardap regions are overlaid by the EPL area.

The proposed Project area is Shown in Figure 1.

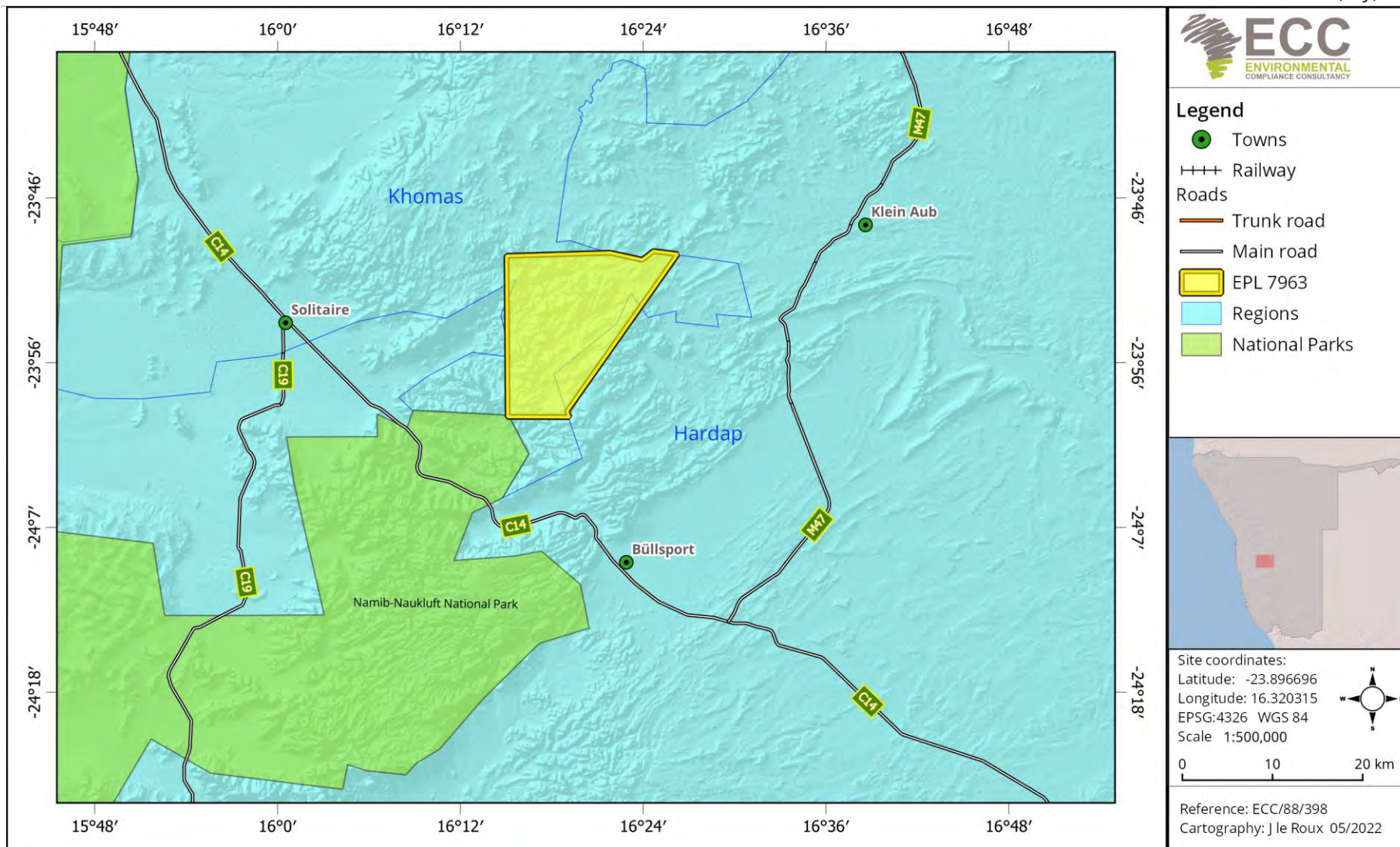


Figure 1 - Locality map of EPL 7963, Hardap Region

1.2 SCOPE OF WORK

The purpose of this report is to present the findings of the assessment for the proposed Project. This scoping report has been outlined in terms of the requirements of the Environmental Management Act, No. 7 of 2007 and its regulations, promulgated in 2012 (referred to herein as the EIA Regulations).

ECC has prepared this report. 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 environmental management plan (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

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1.4 ENVIRONMENTAL COMPLIANCE CONSULTANCY

The report has been prepared by Environmental Compliance Consultancy Pty Ltd (ECC) (Reg. No. 2022/0593) on behalf of the Proponent. Authored by ECC employees with no material interest in the report's outcome, ECC maintains independence from the Proponent and has no financial interest in the Project apart from fair remuneration for professional fees. Payment of fees is not contingent on the report's results or any government decision. ECC members or employees are not, and do not intend to be, employed by the Proponent, nor do they hold any shareholding in the Project. Personal views expressed by the writer may not reflect ECC or its client's views. The environmental report's information is based on the best available data and professional judgment at the time of writing. However, please note that environmental conditions can change rapidly, and the accuracy, completeness, or currency of the information cannot be guaranteed. All compliance and regulatory requirements regarding this ESIA report should be forwarded by email or posted to the following address:

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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 as follows:

Table 2 - Listed activities triggered by the project.

LISTED ACTIVITY	AS DEFINED BY THE ACT	RELEVANCE TO THE PROJECT
MINING AND QUARRYING ACTIVITIES	(3.1) The construction of facilities for any process or activities which require a licence, right, or other forms of authorization, and the renewal of a licence, right, or other forms of authorization, in terms of the Minerals (Prospecting and Mining Act), 1992. (3.2) Other forms of mining or extraction of any natural resources whether regulated by law or not. (3.3) Resource extraction, manipulation, conservation, and related activities.	- The proposed project has obtained an EPL from MME; now requires an environmental clearance from DEA/MEFT for the search rare and base metals, industrial minerals and precious and semi-precious metals. - The proponent will be undertaking exploration activities on EPL 7963, which will include geochemical surveys, geophysical surveys and core drilling.
WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES	(2.1) The construction of facilities for waste sites, treatment of waste and disposal of waste. (2.3) The import, processing, use and recycling, temporary storage, transit or export of waste.	- Waste generated which will 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.

LISTED ACTIVITY	AS DEFINED BY THE ACT	RELEVANCE TO THE PROJECT
		- A portable toilet, long drop hole for a toilet or chemical toilets will be used during exploration activities by the diamond drill crew.
FORESTRY ACTIVITIES	(4.) The clearance of forest areas, deforestation, aforestation, 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 IMPACT ASSESSMENT

2.1 PURPOSE AND SCOPE OF THE IMPACT ASSESSMENT

The EIA process in Namibia is governed and controlled by the Environmental Management Act, No. 7 of 2007 and its regulations, No. 30 of 2012, which is administered by the Office of the Environmental Commissioner through the DEA of the MEFT.

The aim of this assessment is to identify, predict, evaluate, and mitigate the potential impacts of the proposed Project on the natural and human receiving environment, scope the available data and identify the gaps that need to be filled. The assessment process helps to determine the spatial and temporal scope and identify the assessment methodology which is most applicable for use. In addition, the assessment process and subsequent reports are to apply the principles of environmental management to the proposed activities; reduce the negative and increase the positive impacts arising from the Project; provide an opportunity for the public to consider the environmental impacts of the proposed Project through meaningful consultation, and to provide a channel to present the findings of the assessment process to competent authorities for decision making.

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.

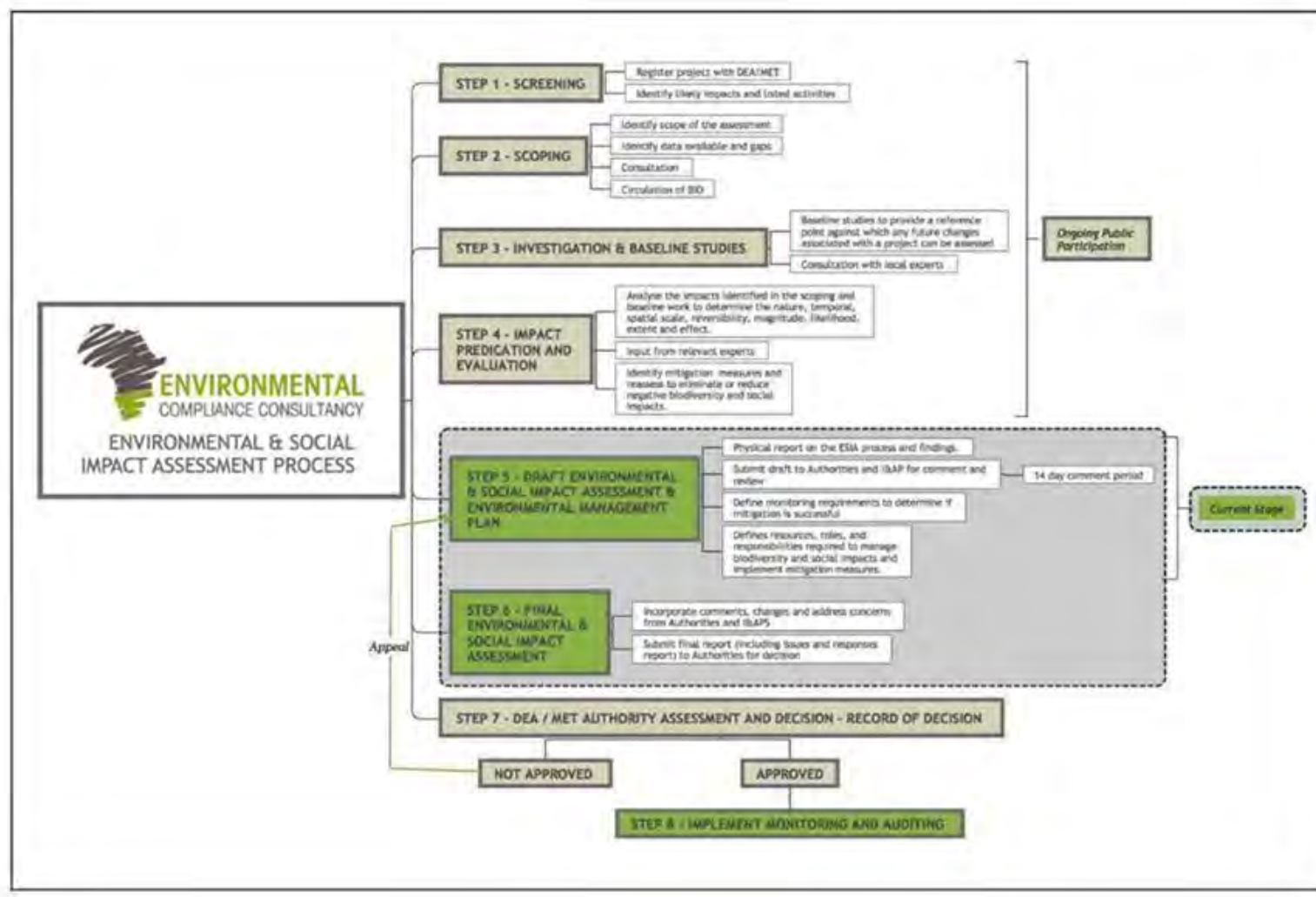


Figure 2 - ESIA Process

2.3 SCREENING OF THE PROJECT

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

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

2.4 SCOPING AND THE ENVIRONMENTAL ASSESSMENT

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

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

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

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

SOCIO-ECONOMIC ENVIRONMENT

- Limited goods and services procurement within the local economy.

BIOPHYSICAL ENVIRONMENT

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

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

2.5 BASELINE STUDIES

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

2.6 PUBLIC CONSULTATION

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

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

2.6.1 IDENTIFICATION OF KEY 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);
- Hardap and Khomas Regional Council
- Rehoboth Town Council
- Farm owners

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

The draft scoping report was submitted to the competent authority, and all interested and affected parties for their review on the 17th of January 2023. The public review period was open for a period of seven days from the 17th of January to the 24th of January 2023.

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 12 July and 20 July 2022 (see Appendix C). The purpose of this was to commence the consultation process by informing the public about the Project and enabling I&APs to register any comments and interest raised for the Project.

2.6.4 SITE NOTICES

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

2.6.5 PUBLIC MEETING

A public meeting was held at Barkhan Dunes at the Nauchas Farmers Association Farmers Union meeting on the 25th of February 2023, where questions concerns and comments were addressed and documented. All comments received were recorded, analyzed and incorporated into the summary report as an addendum to this report as presented in Appendix E.

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 E.

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

The I&APs were encouraged to provide constructive input during the I & AP registration period. All comments, questions or concerns received during the registration period are provided in Table 3.

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

Stakeholder name, details and method through which feedback was received	Comments/Questions Received	Response/Clarification
Caroline Buhrmann Farm Nauzerus - Received via email.	I, Alba Caroline Buhrmann, owner of the farm Nauzerus no 921 hereby submit my objections and comments with regarding to the issuing of the proposed EPL 7963 which covers approximately 2/3 of my farm. Approximately half of the area of the EPL on Nauzerus falls in the mountainous western area, which is essentially a wilderness area. The endangered, CITES protected Hartmann zebra live in this area along with oryx, kudu, leopard, spotted and brown hyena, klipspringers and other species, the numbers of which have been greatly reduced because of the recent prolonged drought (10 years). I have tried to keep this area pristine and free of human impact. This area is very sensitive due to the low rainfall (average 150mm per annum).	- The EMP provides a logical framework, mitigation measures and management strategies for the activities associated with the proposed Project. In this way, ensuring that the potential environmental impacts (including the potential impacts that you have mentioned) are curbed and minimised as far as practically possible and that statutory and other legal obligations are adhered to and fulfilled. - The EMP makes provision for the maintenance of roads. Kindly see Section 2, Table 2 and Section 3.2 Table 3. - The EMP also makes provisions to prevent the disturbance of game and livestock to prevent interruptions with tourism activities. Kindly see Section 10.6 of the EMP.

Stakeholder name, details and method through which feedback was received	Comments/Questions Received	Response/Clarification
	There are rockpaintings in this area, the well documented Rhino Hunt and others which are visited by interested persons. I farm actively with livestock on the eastern part of the proposed EPL and any prospecting/mining will have a serious negative on my farming operations and consequently the livelihoods of my workers and myself due to the following: - Farm gates along the main roads are locked - gates may be left open. - Off road driving destroys the vegetation. - There is an increased risk of veld fires. - Poaching and illegal hunting is of concern. - Stock theft. - Water supply is limited and unreliable. - Water contamination. - Litter and markers (stakes), holes etc are all a danger to the livestock and game. - Adjacent to the proposed EPL area are prehistoric rock engravings which are visited by tourists. On a larger scale the area is on the tourist route to Sossusvlei and the Namib Desert and there are many tourist facilities in the area. Any prospecting, drilling,	- The proponent will have to enter into a contractual land access agreement before they can access farmers properties. Kindly see Section 2, Table 2 - The EMP makes provision for the protection of groundwater to prevent pollution, contamination and over abstraction. Kindly see Section 7 of the EMP - The EMP also makes provision to prevent stock theft and poaching. Kindly see Section 2, Table 2. - The EMP also makes provision to prevent litter and improper waste management. Kindly see Section 2, Table 2. - The EMP makes provision for the preservation of historic sites, artifacts, and objects. Kindly see Section 11.

Stakeholder name, details and method through which feedback was received	Comments/Questions Received	Response/Clarification
	and possible mining activity of any kind in the area will destroy this scenic and pristine area and have a serious negative impact on the tourism industry. Of great concern are: - water contamination (underground and above ground), - water depletion, - air pollution (dust and smoke), - littering, - destruction of the roads by heavy vehicles, - habitat destruction, etc. Please consider my objections.	
Bria Flinner Namibhues - Received via email.	In reference to EPL 7963, I would like to raise and state my concerns as I own land in the neighborhood of the farmland that apparantly is being viewed as mineral rich, hence prospecting it is on the horizon... I must not mention that the natural habitat of that so far peaceful and pristine stretch of land does not recover from any activity focusing on exploration for the purpose of mining.	- The EMP provides a logical framework, mitigation measures and management strategies for the activities associated with the proposed Project. In this way ensuring that the potential environmental impacts (including the potential impacts that you have mentioned) are curbed and minimised as far as practically possible and that statutory and other legal obligations are adhered to and fulfilled.

Stakeholder name, details and method through which feedback was received	Comments/Questions Received	Response/Clarification
	Endangered mountain zebra call the pre Namib and its adjacent rocky mountains their home, any busy activity accompanied by traffic will interfere with their so far peaceful existence. The water contamination is just another factor which will go way beyond the targeted land as the water from that area feeds ground water below, water is scarce and we live with the minimum of any rainfall in Namibia, sometimes no rain is seen for years. Our groundwater is thus essential to our existence and that of the animals living in the Namib. Any depletion or contamination will automatically affect a huge area of land that will not recover ever. Needless to say that the heavy trucks are creating another source of concern: The dust and road surface corrugation will be massively affecting the general situation of all farms en route: Already now, accidents occur due to corrugated roads and the trucks are too heavy for the loose material our roads are paved with.	- The EMP also makes provisions to prevent the disturbance of game and livestock to prevent interruptions with tourism activities. Kindly see Section 10.6 of the EMP. - The EMP makes provision for the protection of groundwater to prevent pollution, contamination and over abstraction. Kindly see Section 7 of the EMP. - The EMP makes provision for the maintenance of roads. Kindly see Section 2, Table 2 and Section 3.2 Table 3. - The EMP also makes provision to prevent stock theft and poaching. Kindly see Section 2, Table 2.

Stakeholder name, details and method through which feedback was received	Comments/Questions Received	Response/Clarification
	Truck drivers will not respect the sensitive terrain nor our game, collisions with animals will become the norm. Their migration route must pass a truck road. We are already facing poaching issues, the envisioned change will make matters for us worse. The depletion of game due to drought, poaching and now truck traffic will end the desert game in a very short time frame. I urge to not add to the destruction of pristine land, the UNESCO heritage is very close by and will be affected, please leave this land in its pristine condition for the next generations of humans and animals alike.	
Lee Tindall Farm Nubib, Hardap Region Greater Sossusvlei-Namib Landscape – Received via email.	We are interested in this project as it relates to the environment and tourism activities. Road quality? Truck/large vehicles will destroy the roads in this area. Current activities, like tourism etc will be affected by this Environmental impacts are of great concern.	The EMP makes provision for the maintenance of roads. Kindly see Section 2, Table 2 and Section 3.2 Table 3. The EMP also makes provisions to prevent the disturbance of game and livestock to prevent interruptions with tourism activities. Kindly see Section 10.6 of the EMP.

Stakeholder name, details and method through which feedback was received	Comments/Questions Received	Response/Clarification
Ernst Sauber Farm Remhoogte, No 227 Khomas district and BüllsPort Lodge and Farm - Received via email.	We are concerned that persons will access our farmland without prior consent from us. We urge you to inform all who might want to do sampling and or any other activity that they have to get permission from the landowner before entering our private property.	The proponent will have to enter into a contractual land access agreement before they can access farmers' properties. Kindly see Section 2, Table 2
Kathrin & Uwe Schulze Neuhoff Ababis Guest Farm - Received via email.	1. Nature and wildlife, especially the CITIS-protected mountain zebras living there, will be severely disturbed by the measures! 2. The C24 is an important tourist route on the way to the Naukluft and Sossusvlei. This will be destroyed by probable activities, both in terms of landscape and the gravel road as such.	The EMP makes provision for the maintenance of roads. Kindly see Section 2, Table 2 and Section 3.2 Table 3. The EMP also makes provision to prevent the disturbance of game and livestock to prevent interruptions with tourism activities. Kindly see Section 10.6 of the EMP.
Alma Harmse Farm Probeer, Barkhan Dune Retreat cc: Guest Farm - Received via email.	How will this effect our Ground water in the area. As this is Semi Desert area we are highly dependent on the ground water.	The EMP makes provision for the protection of groundwater to prevent pollution, contamination and over abstraction. Kindly see Section 7 of the EMP.
Stephanie de Lange Gondwana Collection Namibia: Tourism Establishment - Received via email.	We want to be kept informed on the developments of this environmental and social impact assessment and resultant activity.	All registered I & APs will be notified as the Project progresses.

Stakeholder name, details and method through which feedback was received	Comments/Questions Received	Response/Clarification
Katrin Dierks Portion 398 of the farm Probeer - Received via email.	We strongly object to any mining activities in our region as this will bring the end to put an end to our tourism and farming activities.	The EMP also makes provisions to prevent the disturbance of game and livestock to prevent interruptions with tourism activities. Kindly see Section 10.6 of the EMP.
Jacobus Bruwer Zais / Bergweide Eco Initiatives; Farming & Wildlife Management - Received via email.	We are concerned with any commercial and mining activity having an impact on these environmental sensitive areas and which may have a detrimental consequence to conservation, heritage and tourism.	The EMP provides a logical framework, mitigation measures and management strategies for the activities associated with the proposed Project. In this way ensuring that the potential environmental impacts (including the potential impacts that you have mentioned) are curbed and minimised as far as practically possible and that statutory and other legal obligations are adhered to and fulfilled.
Gerda Willers Namibgrens Guest Farm: Tourism and farming - Received via email.	The area of interest is a sensitive area with low rainfall and water is a rare commodity. Mining and or exploration in the area is unthinkable due to the fact that mining needs lots of water and pollution is a given. The area is a very popular area for tourism and or farming and the destruction of the natural habitat and endangered wildlife and plant species is unthinkable. We are known for certain plant species that are more than 300 years old.	The EMP makes provision for the protection of groundwater to prevent pollution, contamination and over abstraction. Kindly see Section 7 of the EMP. The EMP also makes provisions to prevent the disturbance of game and livestock to prevent interruptions with tourism activities. Kindly see Section 10.6 of the EMP.

Stakeholder name, details and method through which feedback was received	Comments/Questions Received	Response/Clarification
	We don't even think of all the pollution, dust, heavy traffic on the roads that can't even handle the traffic as is. For farmer there will be a big concern about stock theft, corruption of staff, smuggling, veld fires, damaging of trees for firewood... etc etc	The EMP also makes provision to prevent stock theft and poaching. Kindly see Section 2, Table 2.
Alma Harmse Farm Middelplaas Khomas Region – Received via email.	The following are of concern: destruction of natural habitat, endangered species, water contamination, water depletion, pollution, dust, heavy traffic on the roads, poaching, stock theft, increased danger of veld fires, destruction of our livelihood- farming and tourism- etc. so please all send in your objections to prospecting in our area	The EMP provides a logical framework, mitigation measures and management strategies for the activities associated with the proposed Project. In this way ensuring that the potential environmental impacts (including the potential impacts that you have mentioned) are curbed and minimised as far as practically possible and that statutory and other legal obligations are adhered to and fulfilled.

2.7 DRAFT EIA AND EMP

This report and EMP for the Project's environmental clearance includes an assessment of the biophysical and social environment, which satisfies the requirements of Step 5 (Figure 2).

The EIA report documents the findings of the assessment process, provides stakeholders with the opportunity to comment and continue to engage in consultation and forms part of the environmental clearance application. The EMP provides measures to manage the environmental and social impacts of the proposed Project and outlines specific roles and responsibilities to fulfil the plan.

This EIA report focuses on the significant impacts that may arise from the proposed Project as described in Step 4 (Figure 2). These impacts are discussed in Chapter 7.

2.8 FINAL EIA AND EMP

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

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

2.9 AUTHORITY ASSESSMENT AND DECISION MAKING

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

2.10 MONITORING AND AUDITING

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

3 REVIEW OF THE LEGAL ENVIRONMENT

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

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

3.1 NATIONAL REGULATORY FRAMEWORK

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

National Regulatory Regime	Summary	Applicability to the Project
Constitution of the Republic of Namibia (1990)	The constitution defines the country's position in relation to sustainable development and environmental management. The constitution refers that the State shall actively promote and maintain the welfare of the people by adopting policies aimed at the following: "Maintenance of ecosystems, essential ecological processes and biological diversity of Namibia, and the utilisation of living, natural resources on a sustainable basis for the benefit of all Namibians, both present, and future."	The Proponent is committed to the sustainable use of the environment, and has aligned its corporate mission, vision, and objectives within the ambit of the Constitution of the Republic of Namibia (1990).
Minerals (Prospecting and Mining) Act No. 33 of 1992	The Act provides for the granting of various licences related to mining and exploration. Section 50 (i) requires: "An environmental impact assessment indicating the extent of any pollution of the environment before any prospecting operations or mining operations are being carried out, and an estimate of any pollution, if any, likely to be caused by such prospecting operations or mining operations." The Act sets out the requirements associated with licence terms and conditions, such that the holder of a mineral licence shall comply with.	Exclusive Prospecting Licence EPL 7963 was issued to the Proponent in September 2020 and is valid for a period of 3 years. The proposed prospecting activity on EPL 7963 requires an EIA to be carried out, as it triggers listed activities as defined in Government notice 29 in the Environmental Management Act 2007. Prospecting activities in EPL 7963 shall not commence until an Environmental Clearance Certificate has been issued in accordance with the provisions of the Environmental Management Act 2007.

National Regulatory Regime	Summary	Applicability to the Project
	The Act also contains relevant provisions for pollution control related to mining activities and land access agreements and provides provisions that mineral licence holders are liable for any damage to land, water, plant, or animal life, caused by spilling or pollution, and must take all such steps as may be necessary to remedy such spilling, pollution, loss, or damage, at its own costs.	The Project shall be compliant with Section 76 of the Act with regard to records, maps, plans and financial statements, information, reports and returns submitted.
Environmental Management Act, 2007 (Act No. 7 of 2007) and its regulations (2012), including the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2011)	The Act aims to promote sustainable management of the environment and the use of natural resources. The Act requires certain activities to obtain an environmental clearance certificate prior to Project development. The Act states that an EIA should be undertaken and submitted as part of the environmental clearance certificate application process. The MEFT is responsible for the protection and management of Namibia's natural environment. The Department of Environmental Affairs, under the MEFT, is responsible for the administration of the EIA process.	This environmental scoping report documents the findings of the scoping phase of the environmental assessment undertaken for the proposed Project. The process will be undertaken in line with the requirements under the Act and its regulations. Prospecting activities on EPL 7963 shall not commence until an Environmental Clearance Certificate has been issued in accordance with the provisions of the Environmental Management Act 2007.
Hazardous Substances Ordinance, No. 14 of 1974	This Ordinance provides for the control of toxic substances and can be applied in conjunction with the Atmospheric Pollution Prevention Ordinance, No. 11 of 1976.	The planned Project will involve the handling and onboard storage of hazardous substances such as fuels, reagents, and industrial chemicals.

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

3.2 NATIONAL POLICIES AND PLANS

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

Policy or plan	Description	Relevance to the r Project
Vision 2030	Vision 2030 sets out the nation's development targets and strategies to achieve its national objectives. Vision 2030 states that the overall goal is to improve the quality of life of the Namibian people aligned with the developed world.	The proposed Project shall aim to meet the objectives of Vision 2030 and shall contribute to the overall development of the country through continued employment opportunities and ongoing contributions to the gross domestic product (GDP).
Fifth National Development Plan (NDP5)	The NDP5 is the fifth in a series of seven five-year national development plans that outline the objectives and aspirations of Namibia's long-term vision.	The planned Project supports meeting the objectives of the NDP5 through creating opportunities for continued employment.

Policy or plan	Description	Relevance to the r Project
	The NDP5 pillars are economic progression, social transformation, environmental sustainability, and good governance.	
The Harambee Prosperity Plan II (2021 – 2025)	Second Pillar: Economic advancement – ensuring increasing productivity of priority key sectors (including mining) and the development of additional engines of growth, such as new employment opportunities.	The Project will contribute to the continued advancement of the mining industry and create an additional employment generation engine within the regional and national landscape.
Namibia's Green Plan, 1992	Namibian has developed a 12-point plan for integrated sustainable environmental management to ensure a safe and healthy environment and to maintain a viable economy. Clause 2 (f) makes specific mention to guidelines related to Mining and Sustainable Development.	Guidelines as best practise to be adhered too during operational activities.
Minerals Policy	The Minerals Policy was adopted in 2002 and sets guiding principles and direction for the development of the Namibian mining sector, while communicating the values of the Namibian people. The policy strives to create an enabling environment for local and foreign investments in the mining sector and seeks to maximise the benefits for the Namibian people from the mining sector, while encouraging local participation. The objectives of the Minerals Policy are in line with the objectives of the Fifth National Development Plan that include reduction of poverty, employment creation, and economic empowerment in Namibia.	The planned Project conforms to the Policy, which has been considered through the ESIA process and the production of this report. The Proponent intends to continue to support local spending and procurement. The Project will comply with the general guidelines of the Policy through the adoption of various legal mechanisms to manage all aspects of the environment effectively and sustainably from the start. The ESIA is one such mechanism to ensure environmental integrity throughout the planned Project's lifecycle.

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

Permit or licence	Act or Regulation	Related activities requiring a permit	Relevant Authority
Environmental clearance certificate	Environmental Management Act, No 7 of 2007	Required for all listed activities shown in Table 2. Requires issuance of Environmental Clearance Certificate by the Environmental Commissioner.	Ministry of Environment, Forestry and Tourism (MEFT)
Exclusive Prospecting Licence	Section 90 (2) (A) of the Minerals Act, No.33 of 1992	Written permission from the mining commissioner in the form of an Exclusive Prospecting Licence (EPL 7963) has been issued to date.	Ministry of Mines and Energy (MME)

4 PROJECT DESCRIPTION

4.1 NEED FOR THE PROJECT

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

The proposed Project is in line with this vision and has the potential to create employment in local communities in the 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 analyzed 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 finalized 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 7963 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 7.

Table 7 - 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 7963 will include the following: geochemical surveys, geophysical surveys and core drilling. Details of these methods are described below. Ground-based exploration techniques are inevitable in the search of rare and base metals, industrial minerals and precious and semi-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 aerial 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 a bulldozer, terrain dependent. Vegetation clearing will be limited to clearing for access tracks and site camps, should additional areas be cleared for exploration activities the Forest Act, No. 12 of 2001 and its regulations will be complied with (the relevant forestry permits will be applied for if required). Any established or large trees or specially protected plant species shall not be removed, and access tracks will be routed to avoid these wherever possible and permits will be obtained as necessary.

4.3.1 EXPLORATION SCHEDULE

The exploration activities are executed and managed from the Votorantim Exploration Office in Windhoek. 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 Windhoek. 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 core drilling, along with a water truck and supporting equipment (rods truck, water and fuel bowzers, 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 Rehoboth / Solitaire. 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 Rehoboth 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 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 Rehoboth 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 will be diverted into a lined sump to evaporate. 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.

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. As part of this assessment, the baseline was studied in detail, with inputs from specialist studies further discussed as part of the environmental and social impact assessment process.

5.2 LAND USE

EPL 7963 is situated in near Solitaire in the Khomas region and slightly in the Hardap region as seen in Figure 3. The main land use in this area is tourism farms/activities, livestock and game farms.

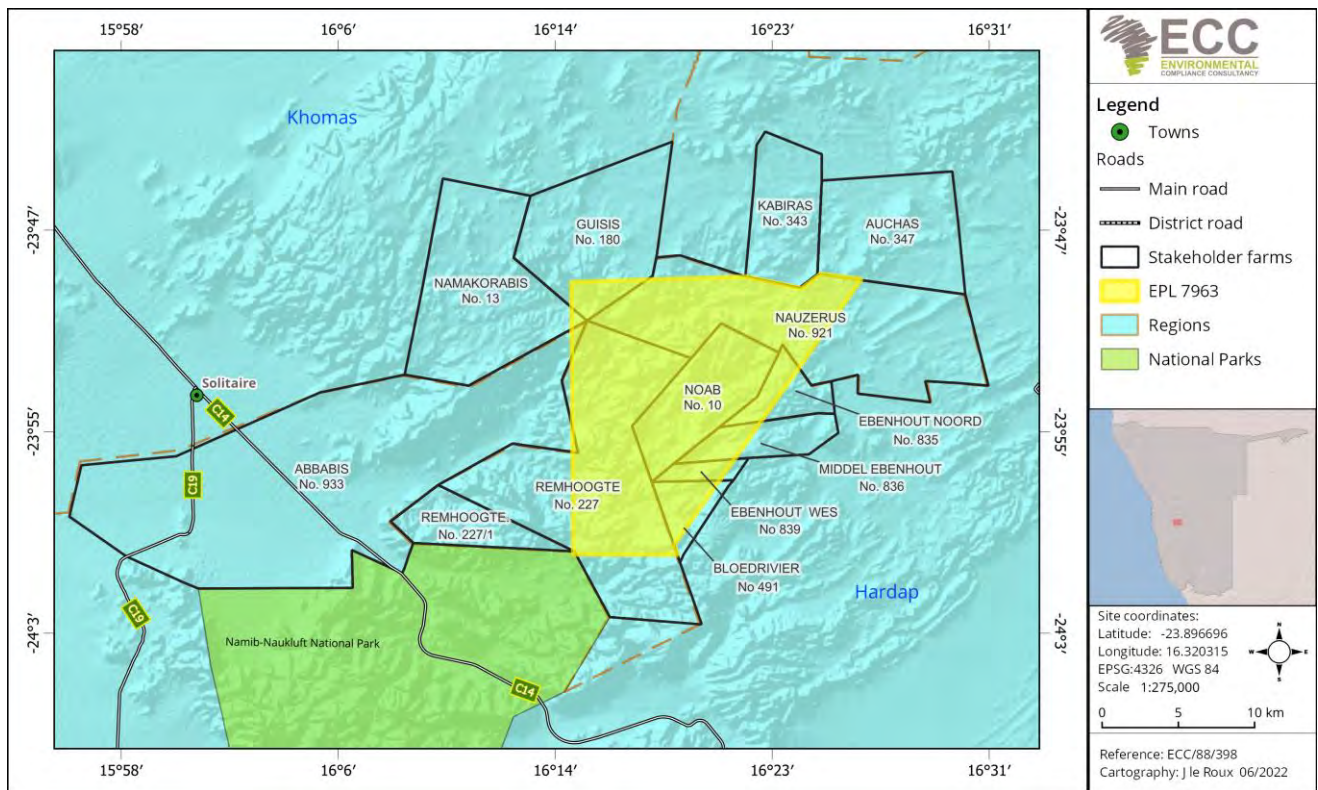


Figure 3 - Stakeholder map

5.3 CLIMATE

EPL 7963 is situated to the southwest of Windhoek in the Khomas Region and slightly overlapping the Hardap Region, Namibia (Figure 4). The climatic conditions characterising the EPL area are mild summers and cool winters with the mean temperatures between 19°C and 20°C, mean maximum temperatures ranging between 21°C and 32°C and mean minimum temperatures ranging between 5°C to 19°C. The hottest months of the year are between November and February and the coolest months are in June and August (Bubenzer, 2002 & meteoblue, 2022).

The most humid months of the year have a humidity of approximately 50% RH, and the driest months have a humidity of approximately 10% RH. The average rainfall in this area during the year is between 150 to 200 mm and rainfall events are limited to the summer months, mainly between January and March. Potential evaporation is between 3200 and 3600 mm per year (Bubenzer, 2002).

The site has wind speeds between 0 and 38 km/h, where the months of July to December 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 and W (Figure 5) (meteoblue, 2022).

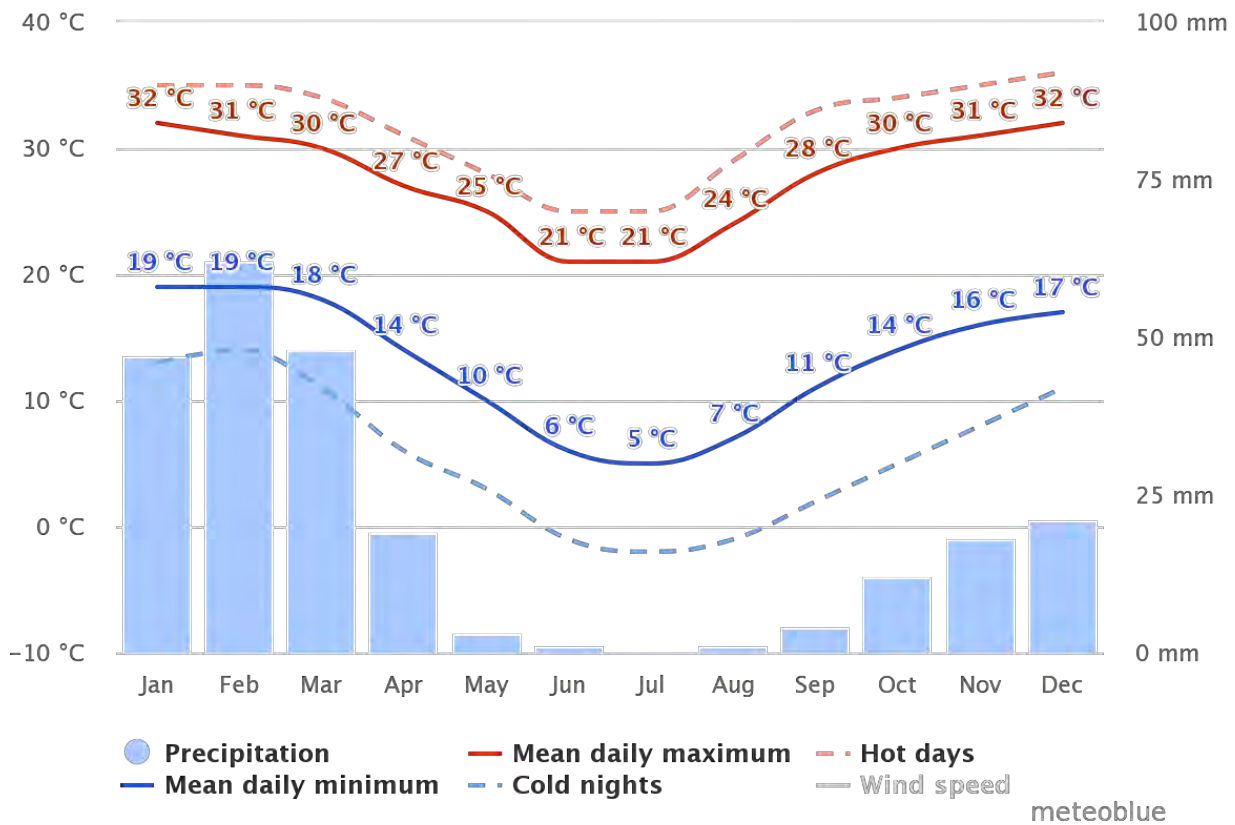


Figure 4 - Climate of the area

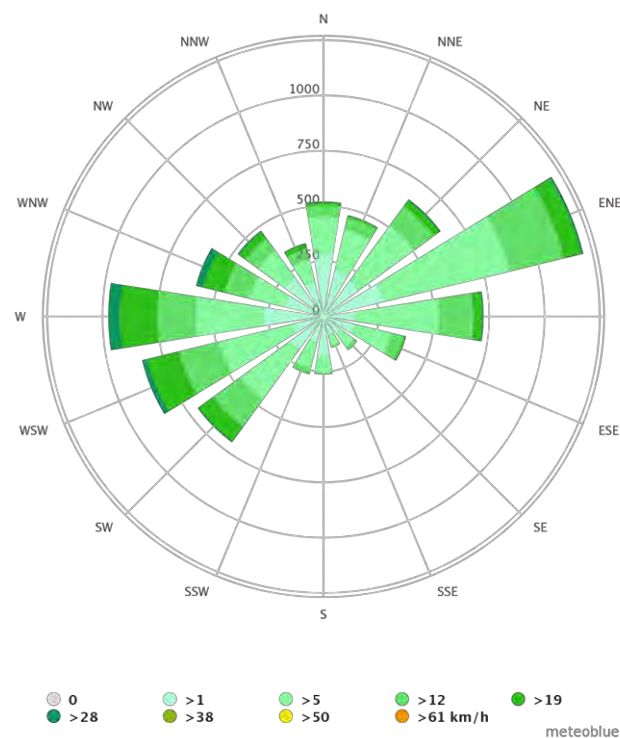


Figure 5 - Average wind speed and directions of the area

5.4 SOIL, GEOLOGY AND TOPOGRAPHY

Namibia can be divided into two broad geological provinces, one covering the western parts and the other in the east. The western parts consist of a variety of geological formations of different ages and compositions and formed under very diverse environmental conditions – some were formed in the depths of primaeval oceans, others as a result of the movement of the earth's crust or because of collisions or volcanic eruptions. Most of these formations are exposed in the west as rugged landscapes of mountains, hills, valleys and plains with sparse vegetation, providing an interesting insight into Namibia's geological past.

The geology over which the EPL falls mainly consists of the Naukluft mountains group (Damara supergroup and Gariep complex) and smaller sections of Kuibis and Schwarzrand subgroups (Nama Group), Gamsberg and associated granites group (Namaqua Metamorphic complex) and Sinclair group. The main rock types of the area are limestones and dolomites (Bubenzer, 2002) shown in Figure 6.

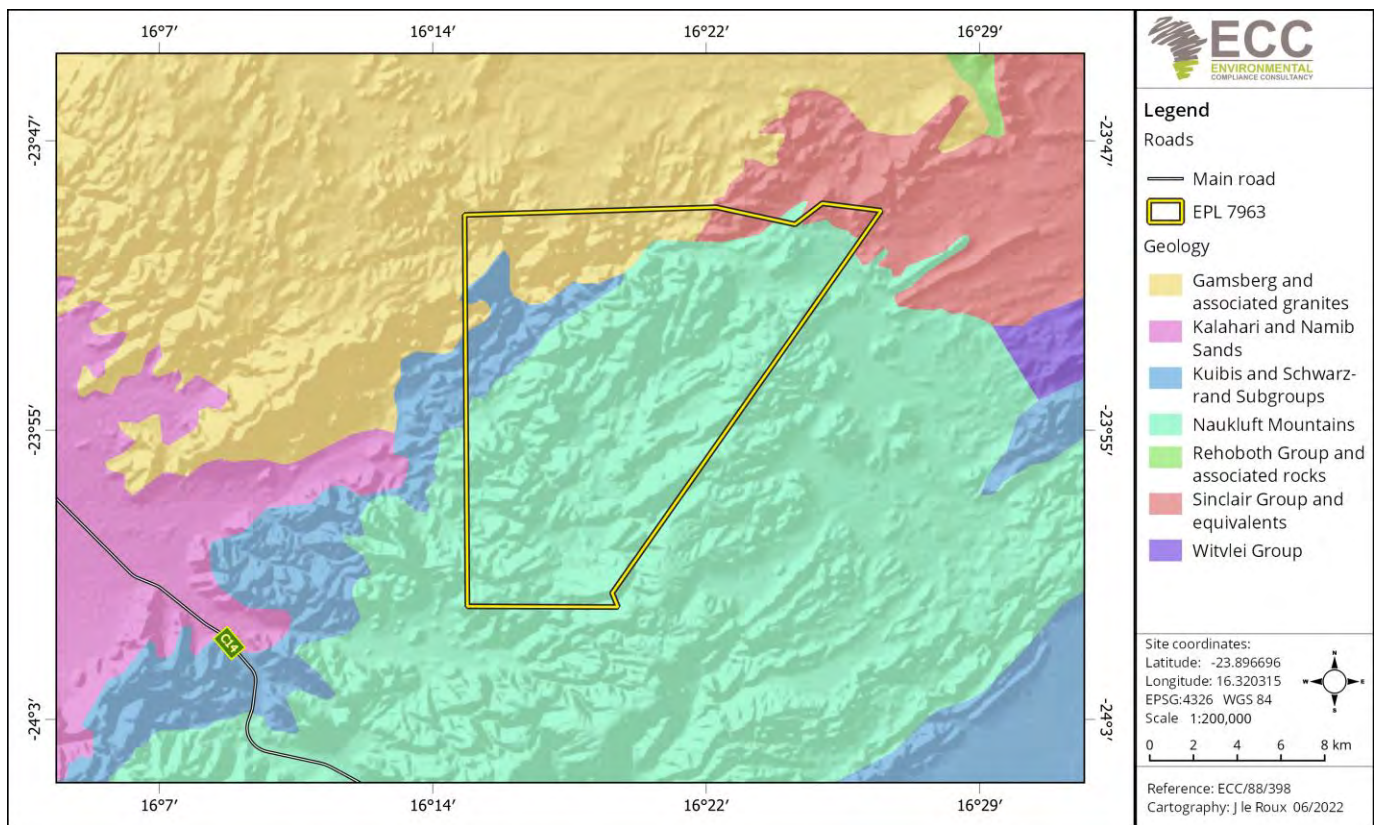


Figure 6 - Geology of the area

The topography of the EPL area is relatively rough with various rock outcrops (Hills) and valleys. The elevation of the EPL varies from just below 1900 m above sea level (central hills) to just below 1350 m above sea level shown in Figure 7.

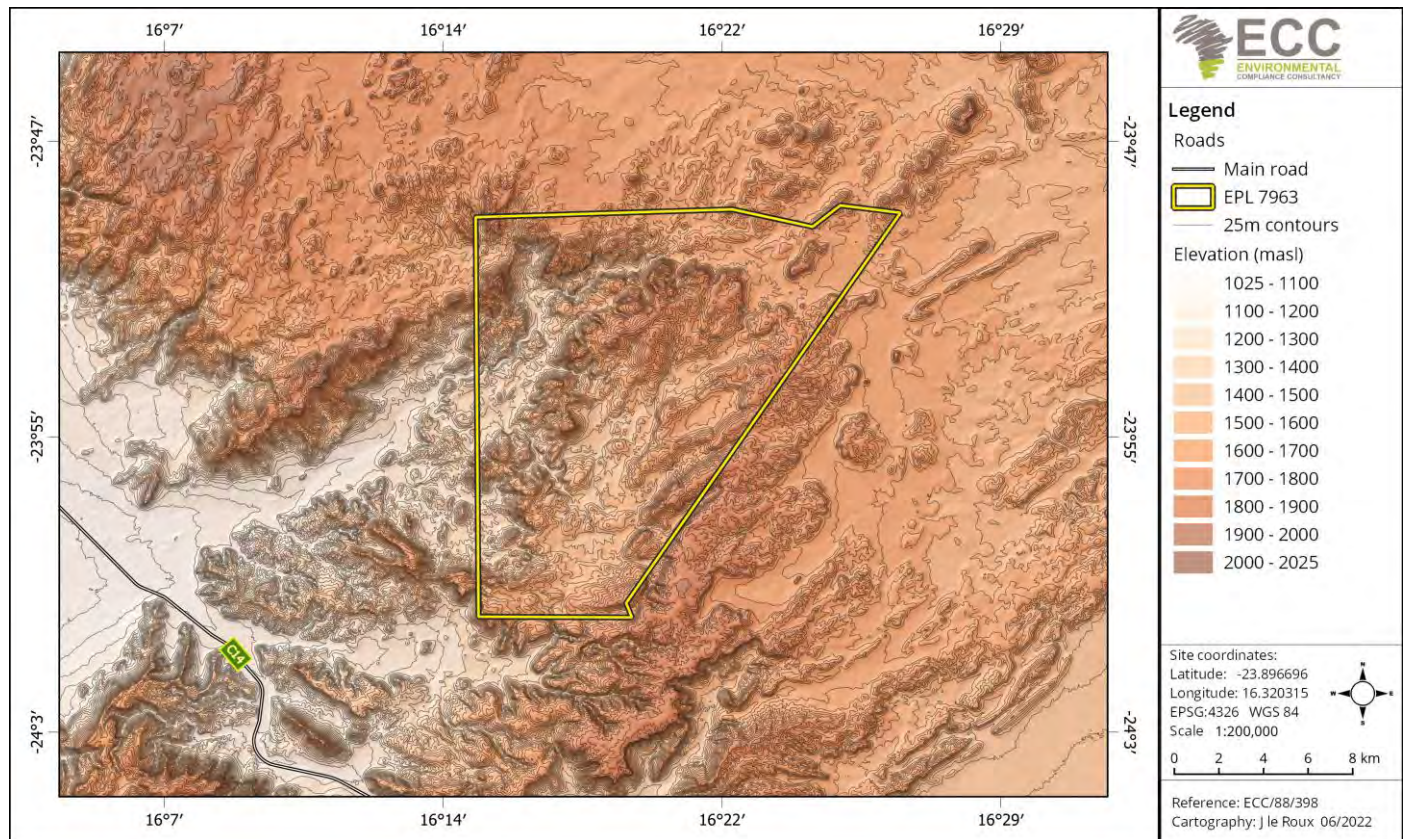


Figure 7 - Elevation of the area

Namibian soils vary a great deal on a broad scale with a great deal of variability at a local level. The dominant soils found within the EPL boundary include lithic leptosols.

The first part of the soil name denotes soil properties. Lithic soils are very thin or shallow soils. The second name reflects the conditions and processes which have led to the formation of the soils (Mendelsohn et al., 2002) shown in Figure 8.

Leptosols are typically formed in areas that are actively eroding, especially in hilly or undulating areas which cover a large part of the southern and north-western parts of Namibia. This type of soil is coarse-textured and offers limited depth due to the presence of hard-rock, highly calcareous or cemented layer within 30cm of the surface. Leptosols are the shallowest soils in Namibia and often contain gravel. It has a low water-holding capacity and so water run-off and water erosion can be very high in these areas if heavy rainfall occurs (Mendelsohn et al., 2002).

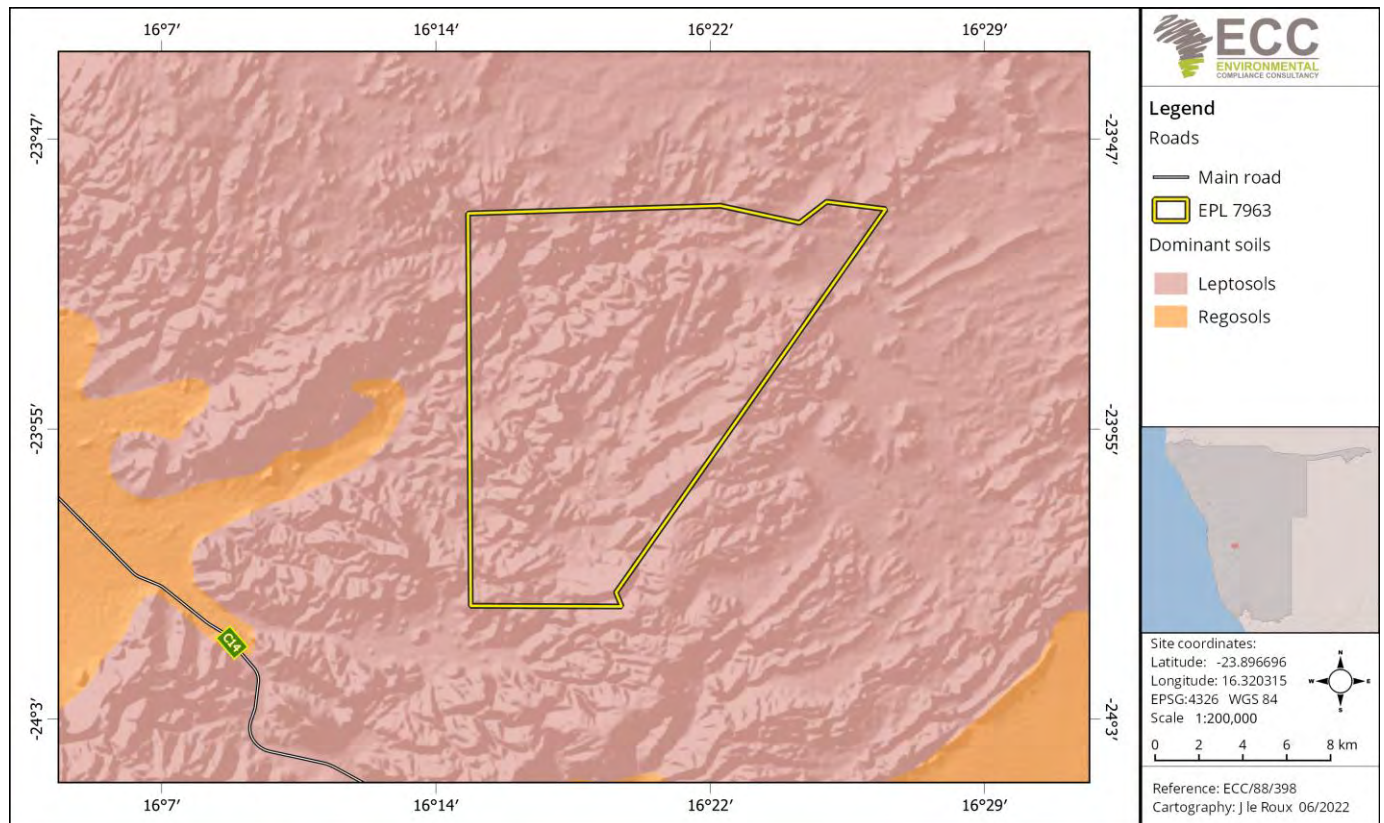


Figure 8 - Soil characteristics of the area

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 moderate potential and rock bodies with little groundwater potential. The groundwater vulnerability in this area is considered to be high (over aquifer) and low (over rock bodies) groundwater recharge within this area is considered to be low (<0.5% - 1% of the total average rainfall). Groundwater in this area is generally of excellent quality (Group A) shown in Figure 9.

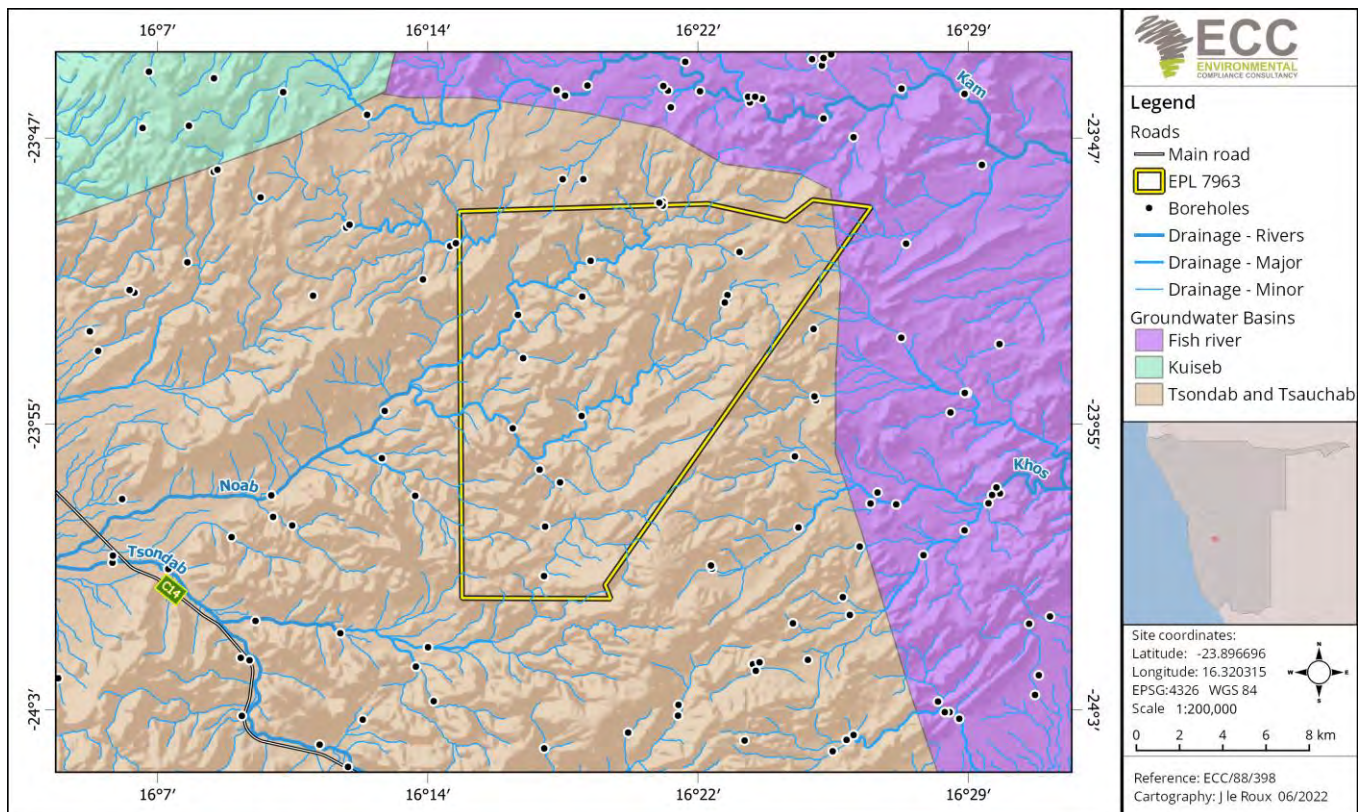


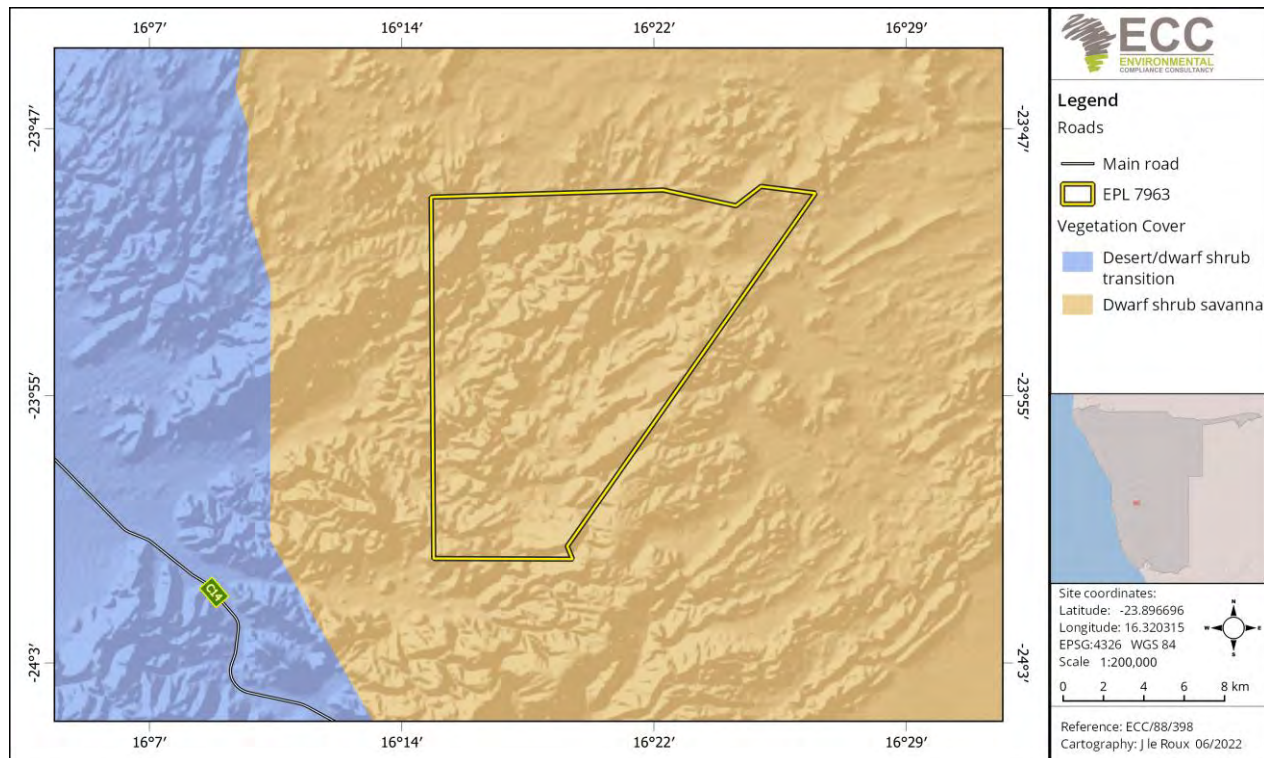
Figure 9 - Hydrology of the area

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 (150 to 300 species) for this area is medium, with low to moderate endemism (2 to 25 species) and the dominant vegetation structure for the EPL is sparse shrubland, the vegetation type is dwarf shrub savanna and the EPL falls within the Nama-Karoo 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 Cordata* (Forestry protected), *Ficus sycomorus* (Forestry protected), *Aloe dichotoma* (Nature Conservation Ordinance, near-endemic and CITES II), *Obetia carruthersiana* (near-endemic), *Boscia albitrunca* (Forestry protected), *Maerua schinzii* (Forestry protected), *Moringa ovalifolia* (Forestry protected and near-endemic), *Albizia anthelmintica* (Forestry protected), *Vachellia erioloba* (Forestry protected), *Faidherbia albida* (Forestry protected), *Parkinsonia africana* (Forestry protected), *Commiphora dinteri* (near-endemic), *Commiphora glaucescens* (near-endemic), *Commiphora saxicola* (endemic), *Commiphora virgata* (endemic), *Euphorbia guerichiana* (CITES II), *Euphorbia avasmontana* (CITES II), *Euphorbia virosa* (CITES II), *Ziziphus mucronata* (Forestry protected), *bainesii* (Nature Conservation Ordinance and endemic), and *Tamarix usneoides* (Forestry protected) (Mannheimer & Curtis, 2009).



5.6.2 FAUNA

The overall terrestrial diversity for the area is low compared to other parts of the country. The area within and surrounding the EPL has a moderate bird diversity status of between about 141 and 170 species, with moderate to high bird endemism (6 to 7 species) and represents an area with moderate mammal diversity of between 61 to 75 (9 to 10 of these species are endemic). Three to four large carnivore species have been recorded in the project area (Bubenzer, 2002, IUCN, 2021, Mendelsohn et al., 2002, Oberprieler and Cillié, 2008 & Stuart and Stuart, 2015).

Furthermore, the reptile diversity within this area is moderate with between 51 and 60 species, 13-20 endemic species; the number of observed lizard species for this area is between 28 to 35 of

which 9 to 11 species are endemic and the different snakes recorded are between 20 to 24 species (7 to 8 endemic species). This area also has a low frog diversity of between 4 and 7 species, and also a low to moderate scorpion diversity (12 to 15 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, various bird species 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 one is classified as near threatened (Brown Hyena) and two are classified as vulnerable (Cheetah, Leopard) 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

The Khomas Region occupies 4.5% of the surface land area of Namibia and accommodates the largest percentage (18%) of the national population total in 2016 (NSA, 2017). The population density in the Khomas Region is 4.2 times higher (12 persons per km²) than the national figure; the projected total population for the Khomas Region was 415,780 in 2016. In the Khomas Region 95% of all people live in an urban area in 2016, Oshiwambo is the most spoken language (41% of all households), the average household size is 3.5 people, and the literacy rate is 97% for people older than 15. Living in an urban environment implies better living conditions – in the Khomas Region 100% of all households have access to safe water, only 25% have no toilet facility, 64% have electricity for lighting and only 7% of the population depend on open fires to prepare food (NSA, 2017).

Three times the size of the Khomas Region, Hardap Region stretches from the Atlantic Ocean in the west to the border with Botswana and South Africa in the east. In the north it borders the Erongo, Khomas and Omaheke Regions and in the south the Karas Region. The region is named after the Hardap Dam, the man-made lake in the Fish River north of Mariental. Only 4% of all Namibians reside in the Hardap Region (Namibia Statistics Agency, 2017a).

The urban population pyramid for Namibia shows a very clear dominance of the age group 20 – 35 as well as for infants (0 – 4 years of age). As the majority of people in the Khomas Region are living in an urban area, the dominance of Windhoek is further apparent – the population of the Khomas Region is young, most of them within the child-bearing age range. The urban population pyramid for Namibia contrasts sharply with the one for the rural population. The base of the pyramid reflects people younger than 25 and forms the majority of the total population – meaning that most people are young Namibians (NSA, 2017)

Namibia is divided into 14 regions, subdivided into 121 constituencies. Khomas Region is divided into ten constituencies. Each region has a regional council, elected during regional elections per constituency. Towns are governed by local authorities, in the form of municipalities.

Windhoek is the national capital and also the capital of the Khomas Region. As the country's capital Windhoek hosts many of the national head offices as well as the head offices of the Khomas regional council. Windhoek is governed by a local authority in the form of a city council.

The dominance of Windhoek as a place of residence in the Khomas Region is apparent – all other urban places in the Khomas Region are classified as settlements – the lowest order of governed populated places in Namibia. Places such as Baumgartsbrunn, Groot Aub, Seeis and Dordabis are managed directly by the central authority

5.7.1 GOVERNANCE

Since its independence in 1990, Namibia is led by a democratically elected and stable government. The country ranked top 5 out of 54 African countries in the Ibrahim Index of African Governance in 2015 for the 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 (National Planning Commission, 2017).

Windhoek is the national capital and also the capital of the Khomas Region while Mariental is the capital of the Hardap Region. As the country's capital Windhoek hosts many of the national head offices as well as the head offices of the Khomas regional council, while Mariental hosts the regional head offices of the Hardap Region. Windhoek is governed by a local authority in the form of a city council while Rehoboth and Mariental (as well as Aranos) are governed by their respective town councils. Villages are governed by village councils and settlements by the central government.

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) is the economic sector with 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 from earning 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 fall in 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. The highest unemployment rates are found amongst persons with education levels lower than junior secondary. The unemployment rate of persons with no formal education is 28.6%, with primary education 34.6% and with junior secondary education 32.7% (NSA, 2019).

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

In the Hardap Region 61.1% of all households depend on salaries and wages as their main source of income, subsistence farming provides the main income for 1.6% of households and non-farming business activities are responsible for the main income of 3.7% households. In the Khomas Region 74.5% of all households depend on salaries and wages as their main income source, only 0.2% of households depend on subsistence farming as the main income and 9.7% of all households get their main income from non-farming business activities (Namibian Statistics Agency, 2017b).

The economy of the Hardap Region is predominantly agriculture-based. Extensive livestock farming is a common activity over the entire region, but intensive farming is also practiced at the irrigation scheme below the Hardap Dam near Mariental. Several crops are produced here, but there are also activities such as piggery, a dairy super farm and abattoirs. Elsewhere irrigation is practiced by utilizing groundwater from the Stampriet artesian aquifer, although at a localized and small-scale. The prominence of agriculture as a primary economic sector in the Hardap Region is responsible for a high figure of informally-employed people – 71.3%. Agriculture is less prominent in the Khomas Region where the majority of people are urbanized. The figure for informal-employed people is also lower (55.6%) as people are employed in a wider range of secondary and tertiary economic sectors such as administration, services and manufacturing (Namibian Statistics Agency, 2017b).

Extensive livestock farming forms the livelihood of many people in the Hardap Region and is one of the reasons for the low intensity land use, the low total population as well as the low population density. Large parts of the region are covered by commercial and communal farms, mainly for small livestock farming. Guest farms and hunting farms are also common, especially in the

western parts around tourist attractions such as Sossusvlei and the Namib-Naukluft National Park. Guest farms and other tourism-related economic activities are also common in the Khomas Region, mainly as a result of its strategic location in Namibia, because of the attraction of Windhoek as the capital and because of the international airport at Hosea Kutako.

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

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

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

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 is one archaeological site from the past 10000 and 2000 years within EPL boundaries and no sites with regard to the following periods: records from 1.8 million to 10000 years ago or within the last 2000 years (Bubenzer, 2002 & Mendelsohn et al., 2002). There are also a few heritage sites near the proposed EPL, including a Driedoornflakte fossil site (approximately 25 km from the EPL).

6 IMPACT IDENTIFICATION & EVALUATION METHODOLOGY

6.1 INTRODUCTION

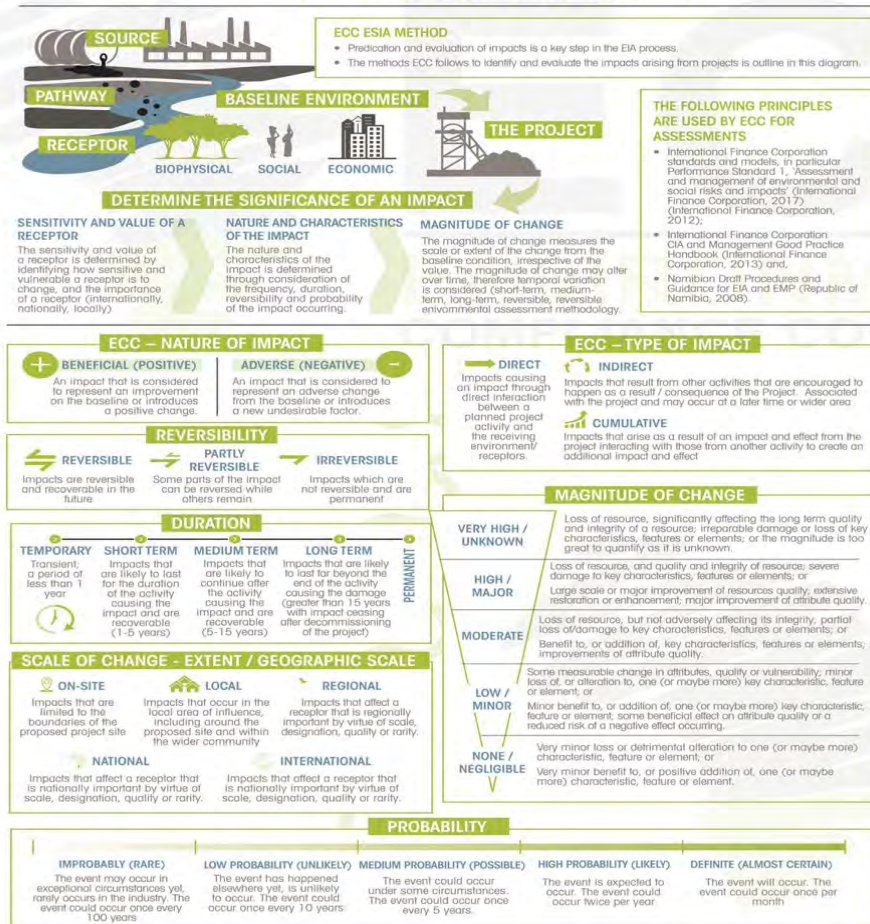
This chapter outlines ECC's method to identify and evaluate impacts arising from the proposed project. The findings of the assessment are presented in Chapter 7.

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



• To assess the beneficial impacts are brought on in the assessment, green has been downplayed to evaluate the different type of impact is clear • The significance of impacts has been derived off by applying the assessed thresholds for receptor sensitivity and magnitude of change, as well as the definition of significance. Moderate and major adverse impacts are considered as significant. • The following thresholds were therefore used to double-check the assessment of significance had been applied accurately; a significant impact would result at most one of the following criteria: • it exceeds widely recognized levels of acceptable change; • it threatens or endangers the viability or integrity of a receptor or receptor group of concern; and • it is likely to be contrary to the ultimate decision about whether, or not the environmental clearance certificate is granted.											
Biophysical		Social		Low		Minor (2)		Moderate (3)		Major (4)	
A biophysical receptor that is protected under legislation or international convention (CITES) listed as rare, threatened or endangered IUCN species. Highly valued/sensitive resource/receptors.		Those affected people/communities will not be able to adapt to changes or continue to maintain pre-impact livelihoods.		High (3)		Minor (3)		Moderate (6)		Major (9)	
Of value, importance/rarity on a regional scale, and with limited potential for substitution; and/or not protected or listed (globally) but may be a rare or threatened species in the country, with little resilience to ecosystem changes, important to ecosystem functions, or one under threat or population decline.		Able to adapt with some difficulty and maintain pre-impact status but only with a degree of support		Medium (2)		Low (2)		Minor (4)		Moderate (6)	
Not protected or listed as common/abundant, or not critical to other ecosystems functions.		Those affected are able to adapt with relative ease and maintain pre-impact status. There is no perceptible change to people's livelihood.		Low (1)		Low (1)		Low (2)		Minor (3)	
										Moderate (4)	
SENSITIVITY AND VALUE											
Low		Medium		High							
Of value, importance or rarity on a local scale; and/or not particularly sensitive to change or has considerable capacity to accommodate a change.		Of value, importance or rarity on a regional scale, and with limited potential for substitution; and/or moderate capacity to change, or moderate capacity to accommodate a change.		Of value, importance or rarity on an international and national scale, and with very limited potential for substitution, and/or very sensitive to change or has little capacity to accommodate a change.							
MITIGATION											
Mitigation comprises a hierarchy of measures ranging from preventative environmental impacts by avoidance, to measures that provide opportunities for environmental enhancement. The mitigation hierarchy is avoidance, reduction of source, resource, receptor level; repairing and correcting; compensation; remediation; and enhancement.											
Mitigation measures can be split into three distinct categories, broadly defined as:											
Standard practices and other best practice measures for avoiding and minimizing environmental impacts. These are considered as good practice measures.		Actions undertaken by the EIA process that influence the design process, through implementing design measures that would actively avoid or eliminate an impact or modifying the design through the inclusion of environmental features to reduce the magnitude of changes. These are considered as embedded mitigation.		Specified additional measures or follow-up action to be implemented to further reduce adverse impacts that remain after the incorporation of embedded mitigation. These are considered as additional mitigation.							
LOW – MAJOR (BENEFICIAL)											
Impacts are considered to be beneficial to the environment and society:											
Low (negative) 0 - 25											
Impacts are considered to be low factors that are unlikely to be critical to decision-making.											
Minor (negative) 25 - 50											
Impacts are considered to be important factors but are unlikely to be key decision-making factors. The impact will be experienced, but the impact magnitude is sufficiently small (with and without mitigation) and well within accepted standards, and/or the receptor is of low sensitivity/value. Impacts are considered to be short-term, reversible and/or localized in extent.											
Moderate (negative) 50 - 75											
Impacts are considered within acceptable limits and standards. Impacts are long-term, but reversible and/or have regional significance. These are generally (but not exclusively) associated with sites and features of national importance and resources/features that are unique and which, if lost, cannot be replaced or relocated.											
Major (negative) 75 - 100											
Impacts are considered to be key factors in the decision-making process that may have an impact of major significance, or large magnitude. Impacts occur to highly valued/sensitive resource/receptors. Impacts are expected to be permanent and non-reversible on a national scale and/or have international significance or result in a legislative non-compliance.											

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

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Figure 10 - 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 6 contains the assumptions and uncertainties identified during the assessment process.

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

Table 8 - Limitations, uncertainties and assumptions

LIMITATION / UNCERTAINTY	ASSUMPTION
Number of access roads and temporary drill campsites	The making of new tracks or access roads will be minimized, and existing tracks and routes will be used as far as possible. While every effort will be made to minimize environmental damage, in some cases it will be necessary to clear some bush to create small roads, which may be required for equipment to reach the site and for temporary campsites. If needed, cut lines have to be created by clearing of vegetation to have access to some parts of the EPL.

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 9 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 9.

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 9.

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

Table 9 - Scoping assessment findings and proposed mitigation measures

Description	Details	
Aspect	Water - Groundwater	
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	- 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, bunded) - No damaged containers in use - Preventative measures will be in place when service and maintenance activities are done (drip trays, non-porous surfaces, funnels, non-damaged containers) - Refuelling will be done in areas with adequate preventative measures in place	
Residual impact after mitigation	Low (2)	

Description	Details	
Aspect	Water - Groundwater	
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	- 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)	

Description	Details	
Aspect	Water – Surface and Groundwater	
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	– 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)	

Description	Details	
Aspect	Water – Surface and Groundwater	
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	– 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)	

Description	Details	
Aspect	Water – Surface and Groundwater	
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	- 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)	

Description	Details	
Aspect	Soil- Impacts	
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	- 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)	

Description	Details	
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	- 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)	

Description	Details	
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	- 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)	

Description	Details	
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	- 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)	

Description	Details	
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	- 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)	

Description	Details	
Aspect	Soil - Impacts	
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	- 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)	

Description	Details	
Aspect	Soil - Impacts	
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	- 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)	

Description	Details	
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	- 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)	

Description	Details	
Aspect	Community and livestock	
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	- 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: ➢ 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)	

Description	Details	
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	- 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)	

Description	Details	
Aspect	Community	
Description of activity	– 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	– 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)	

Description	Details	
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	– 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)	

Description	Details	
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	– 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)	

Description	Details	
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	– 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 7963, 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 23.85°S 16.31°E. [online] Available at: <https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/-23.846N16.307E> [Accessed 24 May 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. (2017a). Namibia inter-censal demographic survey 2016 report. Windhoek: Namibia Statistics Agency.

Namibia Statistics Agency. (2017b). 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

NOTICE OF ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED EXPLORATION ACTIVITIES ON EPL 7963, 7970, 8002 & 8003 FOR BASE AND RARE METALS, INDUSTRIAL MINERALS, AND PRECIOUS METALS WITHIN THE KHOMAS/KHOMAS REGION, NAMIBIA

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

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

Project: The proposed EPLs are located in the following areas: EPL 7963 is approximately 40 km south of Windhoek and can be accessed via the R1 and then turn off onto the C14. EPL 7970 is approximately 10 km south of Windhoek. EPL 8002 and 8003 are located approximately 75 km south of Windhoek. These three EPLs can be accessed via the R1 road off of Windhoek and then turn off onto the C14, Khomas Region.

Proposed Activities: The proposed Votorantim Metals Namibia (Pty) Ltd, proposes the exploration of base and rare metals, industrial minerals and precious metals on EPL 7963, 7970, 8002 & 8003. The proposed activities to conduct exploration by using methods that may include geological mapping, geochemical sampling, geophysical surveys, 3D earth modelling.

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 12 July 2022 to 26 July 2022. I&APs and stakeholders are required to register for the project at: <https://www.ecc-namibia.com/namibia/registration> and complete the registration form for the project.

The terms of ECC will send members and all registered I&APs to keep their informed and engaged as the EIA process develops. ECC will also provide registered I&APs relevant documents to receive during the assessment process.

ECC

ALBA CHIPAMBA TRAINING CENTER

Invites interested candidates to apply for Tutor and Clinical Instructor positions. Submit detailed CV, Certified Qualifications and other supporting documents.

Post Designation: Tutors x 5
Clinical Instructors X2
Rundu & Walvis Bay 7

Duty station: Rundu & Walvis Bay 7

Total Number of Posts: 7

Subjects to be taught: Midwifery Nursing science
Community Health Nursing Science
General Nursing Science

Salary scales:
- Tutor, N\$ 312 000 PA (all inclusive)
- Clinical Instructor, N\$ 276 000 PA (all inclusive)

Minimum Qualification and Job Requirements

Tutor	Clinical Instructor
Degree in Nursing and Midwifery Sciences	Diploma/Degree in Nursing and Midwifery Sciences
Degree/Diploma Nursing Education	Registration with HPCNA
A master's degree in any Nursing science will be an added advantage	5 years relevant working experience working as a nurse
Registration with HPCNA	
5 years relevant working experience in Nursing Education Setting	

NB: Namibians are encouraged to apply
Please forward your application with detailed CV, references and certified copies of qualifications to:
Email: info@albachipamba.com
Enquiries:
M. Rurima 08147203
Closing Date:
29 JULY 2022

Expression of Interest

NedNamibia Holdings Limited and its subsidiaries ("the NNH Group") hereby invites all eligible IBM and Lenovo approved suppliers to indicate their interest in providing Support and Maintenance of Hardware and Software for a period of 1 year to the NNH Group.

Closing date: 10 am on 12 August 2022
Delivery address: New Campus Head Office Ground floor, c/o Fidel Castro & Reverend Michael Scott Streets, at reception.

For More Information contact: Procurement@Nedbank.com.na or 061 295 2055

The NNH Group shall notify all successful applicants of the outcome of their application once the selection has been made.

see money differently **NEDBANK**

VACANCY ANNOUNCEMENT

Biosystems Laboratory Technician
Starting September 2022
APPLICATION DEADLINE: Friday 29th of July 2022
Location: Lüderitz, Namibia

Profile: Kelp Blue Namibia is looking to hire an enthusiastic laboratory technician to join its Biosystems team. The successful candidate will work closely with the existing team to support kelp production activities at its Lüderitz based kelp hatchery. They will also be required to conduct detailed and diligent daily reporting of activities, assist with maintenance, cleaning and fixing, as well as overseeing the day-to-day tasks of interns. The candidate is required to have minimum 2 years existing experience working in a laboratory environment, but does not require prior experience working with algae (although this would be advantageous). The ideal technician should be detail orientated, meticulous and happy to work on routine tasks until completed.

WHAT YOU WILL DO: The candidate is primarily required to assist with/ be responsible for ensuring a continuous supply of sterile seawater (including the collection of raw seawater), stock take and ordering of consumables, cleaning/maintenance of laboratory spaces/ equipment, preparation for various production activities, data capture and overseeing laboratory interns. The selected candidate would also assist with the maintenance of kelp cultures and other production related tasks. Additionally, Kelp Blue is constantly expanding and upgrading its hatchery and laboratory spaces, hence the new staff member would be able to contribute to the development of these spaces.

This is a fantastic opportunity for the selected candidate to (1) develop and contribute their existing laboratory experience, (2) gain experience working in the field of aquaculture and algal sciences, (3) have the opportunity to join the Kelp Blue team - a fast-paced start-up, whose goal is to reforest the ocean with Giant Kelp, improving biodiversity and capturing atmospheric CO2.

REQUIREMENTS:
• BSc or MSc in a marine or terrestrial related field (i.e., a background in science)
• Minimum 2 years working in a laboratory environment
• Willing to relocate to Lüderitz, Namibia
• Happy to conduct routine and administrative tasks
• Driving license

ADVANTAGEOUS EXPERIENCE AND TRAITS:
• Experience working with Algae, Fungi or other micro-organisms
• Experience in HACCP and/or bio-security
• Experience in Aquaculture systems

WANT TO APPLY?
Send an email with CV and motivation letter to: recruitment@kelp.blue with BIOSYSTEMS TECHNICIAN in the subject line (DEADLINE: Friday 29th of July 2022).

APPENDIX D – SITE NOTICES



GPS Coordinates:

Lat: -23.981052

Long: 16.09701

APPENDIX F – EAP CVS

APPENDIX G – STAKEHOLDER LETTER



+264 81 669 7608

info@eccenvironmental.com

www.eccenvironmental.com



REFERENCE: ECC-88-398-LET-15-D

1 August 2022

Identified stakeholder and potentially interested or affected party for:

The proposed exploration activities on EPL 7963 for base, rare metals, industrial and precious metals within the Hardap/Khomas Region

RE: NOTIFICATION OF AN ENVIRONMENTAL ASSESSMENT OF THE PROPOSED EXPLORATION ACTIVITIES ON EPL 7963 FOR BASE, RARE METALS, INDUSTRIAL MINERALS AND PRECIOUS METALS WITHIN THE HARDAP/KHOMAS REGION, NAMIBIA.

Environmental Compliance Consultancy (ECC) has been engaged by Votorantim Metals Namibia (Pty) Ltd, the Proponent, as their environmental assessment practitioner to conduct an environmental and social impact assessment, in terms of the Environmental Management Act, No. 7 of 2007 for the proposed exploration of base, rare and precious metals and industrial minerals in the Hardap/Khomas Region, Namibia.

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

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

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

- Advertising in newspapers; public notice boards;
- Distributing a Background Information Document (BID) to identified I&APs; available online at <https://eccenvironmental.com/download/the-proposed-exploration-activities-on-epls-79637973-8050-8051-for-base-and-rare-metals-and-industrial-minerals-and-precious-metals-hardap-khomas-region-namibia/>)

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



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

I&APs who wish to register for the project can do so on the ECC website as per the link provided below: <https://eccenvironmental.com/download/the-proposed-exploration-activities-on-epls-7963-7973-8050-8051-for-base-and-rare-metals-and-industrial-minerals-and-precious-metals-hardap-khomas-region-namibia/>

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

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

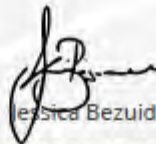
Yours sincerely,



Stephan Bezuidenhout

Environmental Compliance Consultancy

Email: stephan@eccenvironmental.com



Jessica Bezuidenhout (Mooney)

081 669 7608

Email: jessica@eccenvironmental.com