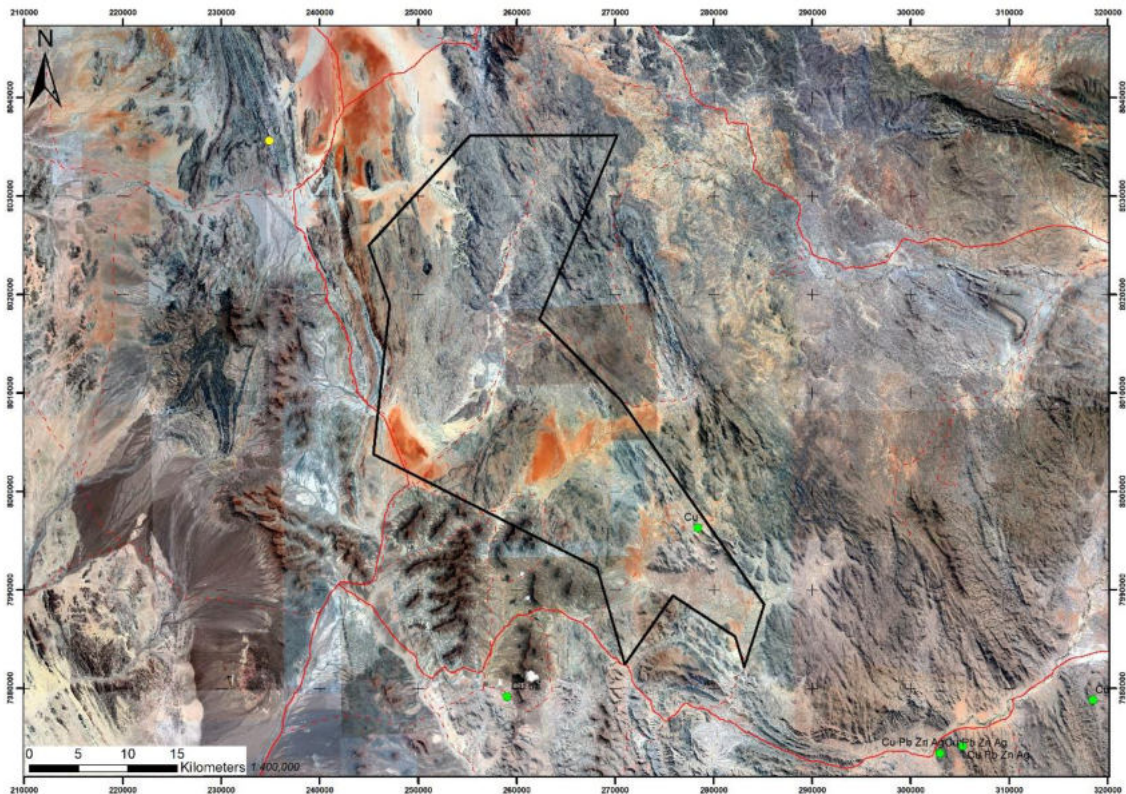


ETANGA EXPLORATION PROJECT

PROPOSED PROSPECTING ACTIVITIES FOR BASE AND RARE METALS, DIMENSION STONE, INDUSTRIAL MINERALS, NON-NUCLEAR FUEL MINERALS, NUCLEAR FUELS MINERALS, PRECIOUS METALS AND SEMI-PRECIOUS STONES, WITHIN EXCLUSIVE PROSPECTING LICENCE (EPL) 7873

EPUPA AND OPUWO RURAL CONSTITUENCIES

KUNENE REGION



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Etanga Project Scoping Report with Assessment – March 2023

Project:	ENVIRONMENTAL ASSESSMENT OF THE PROPOSED MINERALS EXPLORATION WITHING EXCLUSIVE PROSPECTING LICENCE (EPL) 7873 – EPUPA AND OPUWO RURAL CONSTITUENCIES, KUNENE REGION
Report:	Draft Report for Public Review, version 2
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EXECUTIVE SUMMARY

Kunene Resources (Pty) Ltd holds EPL 7873 which is roughly 98 277 hectares in size and located on communal land approximately 105 km northwest from Opuwo town, in the Kunene region, near the Etanga settlement. The licence covers portions of Orupembe, Sanitatas, Okondjombo, Etanga and Otjitanda communal conservancies. EPL 7873 is granted by the Ministry of Mines and Energy of Namibia for the exploration of base and rare metals, dimension stone, industrial minerals, non-nuclear fuel minerals, nuclear fuels minerals, precious metals and semi-precious stones.

The proponent has commissioned an EIA process based on the requirements of the Environmental Management Act (Act. No. 7 of 2007) and associated EIA regulations as per Government Notice (GN) No. 29 and 30. An Environmental Clearance Certificate (ECC) for the operation of the proposed minerals prospecting activities is required in compliance with the provisions of the Environmental Management Act of 2007, and thus an EIA application with associated support documents has been developed for submission to the Ministry of Mines and Energy (MME) and to the Ministry of Environment, Forestry and Tourism (MEFT) for review.

The Environmental Impact assessment (EIA) report, including an Environmental Management Plan (EMP), will enable MME and MEFT to make an informed decision regarding the proposed development from an environmental perspective. An assessment of the potential impacts is undertaken to determine the significance of the prospecting activities as comprised with the different stages of exploration works and with the possible construction of temporary structures and the decommissioning phase of the proposed project on the environment.

The exploration programme is targeting sediments of the Nosib and Otavi Groups in which the presence of base metals such as copper (Cu), zinc (Zn), and lead (Pb) as well as cobalt (Co), precious metals, but also nuclear fuel minerals, industrial mineral and semi-precious stones might occur. Copper-silver-cobalt mineralization can be stratabound and might be hosted by the uppermost arkosic sandstone of the Nosib Group with interbedded limestone and dolostone of the Otavi Group. Other targets include areas where rock outcrops of the Epupa Metamorphic Complex are present. These units might host numerous minerals such as nickel, chromium, cobalt, iron and titanium. These grounds render good prospectivity for the above base metals and target mineralisation.

Access to the EPL is from Opuwo via the D3703 district road towards Otjitanda. Existing access roads will be utilized and if necessary, will be upgraded to accommodate heavy vehicles and operational machines so as to minimize environmental damage to the area.

This scoping report describes the bio-physical and socio-economic environment, it documents the stakeholder engagement process, and renders a draft an Environmental Management Plan for managing the potential environmental impacts that the exploration activities could result in.

The benefits that could arise from the project are:

- Contributions to annual license fees to the government through the Ministry of Mines and Energy (MME)
- Payments for lease agreements and services rendered.
- Provisional contracting opportunity for companies in mineral exploration throughout the mineral prospecting phase, which might take several years.
- Provision of contractual employment opportunities.
- Increase in knowledge on the subsurface which then contributes to development, and geoscience research.
- Contribute to the socio-economic development of the local area and region, even more, should viable discoveries be made. Direct capital investment into the Kunene Region.

The EPL is situated in a remote rural area. The physical and biological environment is aesthetically beautiful. Nonetheless, there are obvious signs of the effects of the drought that exacerbate the

difficulties which the communities experience in living off the land. The exploration operations will take place on communal land. Due respect will be given to the communities that use the area for subsistence living. The Ovahimba people are semi-nomadic and may come in close proximity to the operations from time to time. Good community relations are imperative for the successful running of the project. Public safety is of utmost importance.

The impact assessment identified 10 aspects which are listed below, and which could potentially be of concern should the project proceed. Each aspect is briefly described in terms of its function as an amenity, product and or benefit, and how such can be affected or potentially impacted. It is then assessed in terms of duration, spatial extent, severity (or intensity), resultant consequence, significance of the consequence as determined by probability. This method is referred to as the Hacking Assessment Method. These 10 aspects are listed below:

- Air quality
- Noise
- Health & safety
- Visual
- Land use
- Waste
- Ecological, biodiversity & habitat alteration
- Water resources
- Socio-economic
- Decommissioning

The impact assessment considered whether these aspects were relevant to the initiation phase, prospecting activities, and decommissioning of the project. Possible preventory, mitigatory and rehabilitation measures were considered for each aspect along what is referred to as the mitigation hierarchy continuum. The preferred measure being the preventory measure.

The Environmental Management Plan (EMP) provides management options to ensure that impacts of the project are minimised. The EMP outlines nine environmental management programmes which are to be used for all phases of the exploration activities. Monitoring recommendations are included in the EMP.

The nine environmental management programmes of the EMP are relevant for some or all of the phases of the project's life, and they are as follows:

- 1. Air quality Management Programme**
- 2. Noise Management Programme**
- 3. Health & safety Management Programme (includes Security)**
- 4. Visual Management Programme**
- 5. Stakeholder Communication Management Programme (include socio-economic aspects)**
- 6. Waste Management Programme**
- 7. Ecology Management Programme**
- 8. Water Resource Management Programme**
- 9. Decommission & Rehabilitation Management Programme**

The EMP must be used as an on-site reference document for the exploration activities and associated operations. Parties found transgressing the EMP should be held responsible and tasked to rectify the situation. The proponent could use an in-house Health, Safety, Security and Environment Management System in conjunction with the EMP and its nine management programmes. Personnel must be taught and understand the contents of the EMP as a minimum requirement for the development and operation of the project. Best practice would be the hiring of a suitably qualified and experienced environmental control officer to implement the nine environmental management programmes. Alternatively, the implementing of the programmes should be delegated amongst the management

personnel on and off site. The EMP requires minimum monitoring of the environmental aspects listed under the management programmes.

Based on the information provided in this report, the EAP is confident that the identified risks associated with the project can be reduced to acceptable levels. This is conditional on the implementation of all the measures (i.e., preventions, mitigations, remediations, monitoring etc.) described in the EMP. It is therefore recommended that the project receive Environmental Clearance, conditional on adherence to the EMP.

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LIST OF ABBREVIATIONS

BID	Background Information Document
DEA	Directorate of Environmental Affairs
DoF	Directorate of Forestry
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
EMA	Environmental Management Act No 7 of 2007
EMP	Environmental Management Plan
EMS	Environmental Management System
EPL	Exclusive Prospecting Licence
IAPs	Interested and Affected Parties
MAWLR	Ministry of Agriculture Water and Land Reforms
MEFT	Ministry of Environment Forestry and Tourism
MSDS	Material Safety Data Sheets
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
PPP	Public Participation Process
SR	Scoping Report
TA	Traditional Authority
WHO	World Health Organization

GLOSSARY OF TERMS

Competent Authority	A body or person empowered under the local authorities act or Environmental Management Act to enforce the rule of law.
Environment	As defined in the Environmental Assessment Policy and Environmental Management Act - “land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, palaeontological or social values”.
Environmental Assessment (EA)	Process of assessment of the effects of a development on the environment.
Environmental Management Plan (EMP)	A working document on environmental and socio-economic mitigation measures, which must be implemented by several responsible parties during all the phases of the proposed project.
Interested and Affected Party (IAP)	Any person, group of persons or organisation interested in, or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity.
Mitigate	The implementation of practical measures to reduce adverse impacts.
Proponent (Applicant)	Any person who has submitted or intends to submit an application for an authorisation, as legislated by the Environmental Management Act no. 7 of 2007, to undertake an activity or activities identified as a listed activity or listed activities; or in any other notice published by the Minister or Ministry of Environment & Tourism.
Scoping Process	Process of identifying: issues that will be relevant for consideration of the application; the potential environmental impacts of the proposed activity; and alternatives to the proposed activity that are feasible and reasonable.
Stakeholder Engagement	The process of engagement between stakeholders (the proponent, authorities and IAPs) during the planning, assessment, implementation and/or management of proposals or activities. The level of stakeholder engagement varies depending on the nature of the proposal or activity as well as the level of commitment by stakeholders to the process. Stakeholder engagement can therefore be described by a spectrum or continuum of increasing levels of engagement in the decision-making process. The term is considered to be more appropriate than the term “public participation”.
Stakeholders	A sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term therefore includes the proponent, authorities (both the lead authority and other authorities) and all interested and affected parties (I&APs). The principle that environmental consultants and stakeholder engagement practitioners should be independent and unbiased excludes these groups from being considered stakeholders.

1 BACKGROUND AND INTRODUCTION

The proponent, Kunene Resources (Pty) Ltd applied for mineral exploration rights with the Ministry of Mines and Energy (MME) in September 2019. A notice of preparedness to grant an Exclusive Prospecting Licence (EPL 7873) was issued to the proponent in July 2022. The physical licence will be issued once MME is satisfied with the requested documents which Kunene Resources will submit to the mining commissioner, these includes an Environmental Clearance Certificate (ECC).

The licence is situated approximately 105 km northwest from Opuwo and reached via the D3703 district road towards Otjitanda. The EPL falls equally within Epupa and Opuwo rural constituencies covering portions Orupembe, Sanitatas, Okondjombo, Etanga and Otjitanda communal conservancies. Table 1 indicates the corner coordinates of the EPL and Figure 1 renders locality maps showing some settlements in the surrounding and access routes for the project.

Table 1 - Corner coordinates of the EPL

ID	LATITUDE	LONGITUDE	ID	LATITUDE	LONGITUDE
1	-17.7500	12.83284	8	-18.2351	12.83429
2	-17.9177	12.75629	9	-18.1463	12.80885
3	-17.9929	12.83336	10	-18.0395	12.59567
4	-18.1819	12.96858	11	-17.9021	12.61299
5	-18.2388	12.94887	12	-17.8480	12.59374
6	-18.2111	12.94040	13	-17.7486	12.69167
7	-18.1727	12.88108			

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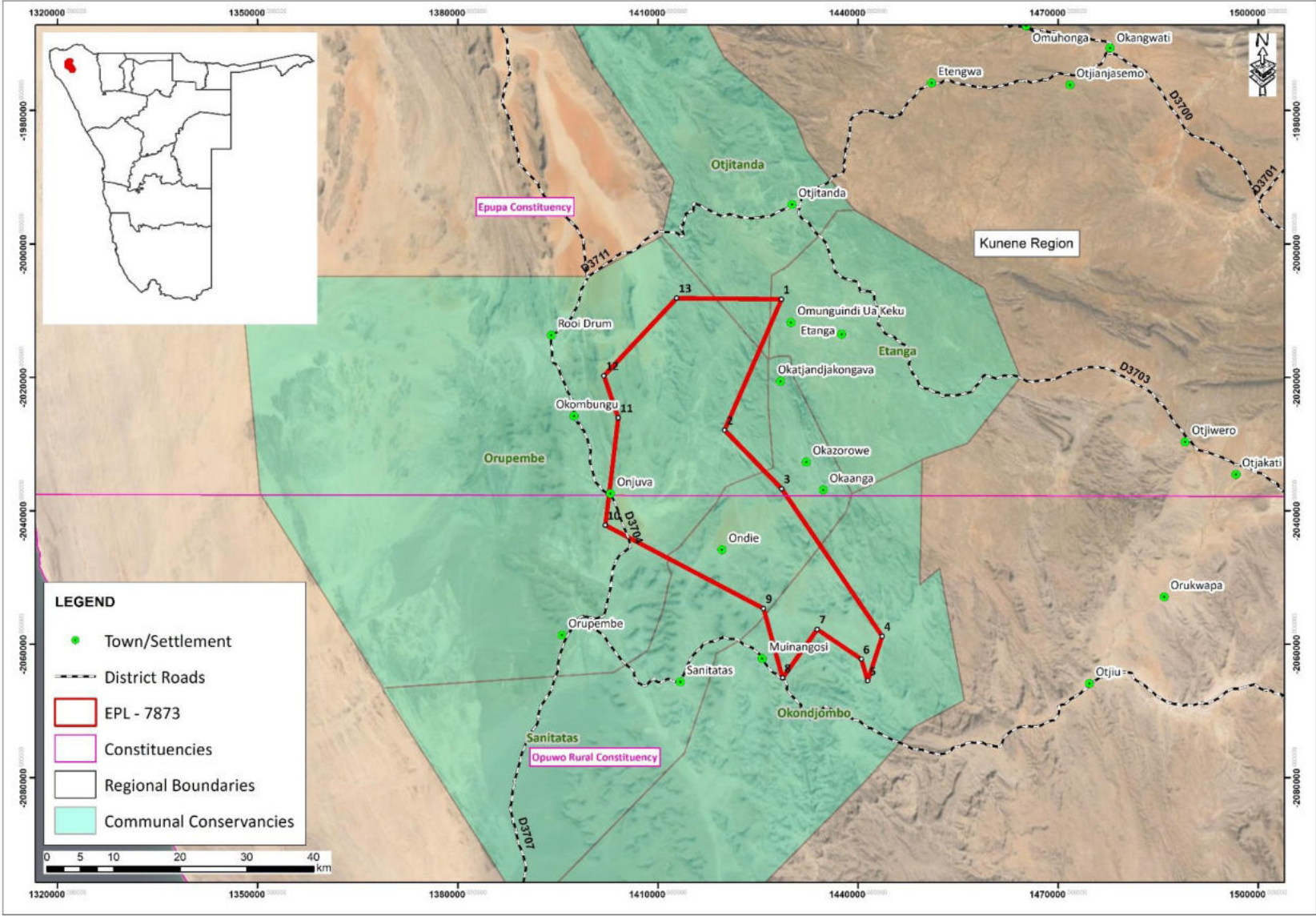


Figure 1 - Map showing the project area relative to the Kunene Region

2 TERMS OF REFERENCE

Ms. Lovisa Amwele, Geokey cc, was appointed, to undertake the assessment and compile this scoping assessment report and Environmental Management Plan (EMP) in support of the application with the assistance of Oliver Krappmann as independent consultants. The curriculum vitae of the personnel is provided in **Appendix A**.

The Terms of Reference for the proposed project is based on the requirements set out by the Environmental Management Act (EMA) (2007) and its EA Regulations (2012). The process covered the following steps, as divided into the sections below. Each section describes what was undertaken.

2.1 SCREENING & SCOPING

Various desktop research was conducted in attempt to gather information related to the physical environment in terms of the biodiversity, geology and social economic status of the people living around the project area.

2.2 LEGAL FRAMEWORK

All legislation, policies and guidelines that had reference to the proposed project were listed. The activities for which clearance is required for the project were extracted from the EMA Regulations. As per legal requirements, any minerals prospecting activities requires the Environmental Commissioner within the Ministry of Environment Forestry & Tourism to render an Environmental Clearance Certificate (ECC) in terms of the Environmental Management Act, No 7 of 2007 (EMA).

2.3 PROJECT DESCRIPTION

The aim of this report is to provide details on the proposed prospecting, and rehabilitation activities that will enable decision makers to make informed decisions regarding the development from an environmental perspective. Stakeholders too who provide consent must know and understand the project details. This section was based on the information that was provided by the proponent.

2.4 PUBLIC PARTICIPATION PROCESS

To inform Interested and Affected Parties (I&APs) and relevant authorities of the details of the proposed development and provide them with a reasonable opportunity to participate during the process. Stakeholder engagement through the Public Consultation Process, is described in a later section of this report.

2.5 ENVIRONMENT DESCRIPTION

The 'environment' is defined in the Environmental Assessment Policy and Environmental Management Act as "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values". Relevant environmental data was compiled by making use of secondary information and stakeholder consultation. The report identified existing environmental (both ecological and socio-economic) conditions of the receiving environment in order to determine environmental sensitivities. Information regarding the biophysical and socio-cultural environment was sourced from a number of studies previously done in and around the study area. Please refer to the document reference list for the sources of information consulted.

2.6 IMPACT ASSESSMENT

The scoping and assessment process aims to guide and promote sustainable and responsible development but not to discourage development.

Potential environmental impacts and associated social impacts were identified and are addressed in the report. The EAP has assessed all likely positive and negative impacts environmental and social impacts at the local and regional (Kunene Region) and national (Namibia) levels using the Hacking Assessment Method. Possible enhancement measures have been listed for those positive impacts while prevention, mitigation and rehabilitation measures have been provided for negative impacts. The environmental assessment was conducted to comply with Namibia's Environmental Management Act, the requirements of Local Authorities and all other legal requirements applicable to the development and Namibia. The assessment process involved merging of various information streams into a description of the environment and the proposed project. If the environmental commissioner finds that the assessment of potential impacts and the proposed mitigation measures proposed in this report, are acceptable, an ECC may be awarded.

2.7 ENVIRONMENTAL MANAGEMENT PLANNING (EMP)

This task involved the drafting of a standalone document that outlined the management, monitoring and mitigation measures that will avoid, minimise and/or mitigate potentially negative impacts. In some case remediation and rehabilitation will be required. The EMP should refer to the EIA, with the conditions stipulated therein, thus rendering the EMP a legally binding document to which the proponent must adhere.

3 ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS

To protect the environment and achieve sustainable development, all projects, plans and programmes deemed to have adverse impacts on the environment require an ECC, as per the Namibian legislation which lists specific activities that need to apply for such clearance. The establishment of the proposed minerals prospecting falls within the range of these activities as mentioned above. The relevant project activities for which an ECC application must be made (listed as per Government Notice No 29 of 2012) are included in Table 2 below:

Table 2 - Applicable EMA listed activities.

Activity No.	Activity	Applicability
1.a	The construction of facilities for - the generation of electricity;	Diesel powered generators will be used as a source of electricity on site.
2.1	The construction of facilities for waste sites, treatment of waste and disposal of waste.	Provision of ablutions on site for staff.
2.3	The import, processing, use, recycling, temporary storage, transit or export of waste	Provision of ablutions on site for staff
3.1	The construction of facilities for any process or activity which requires a licence, right or other form of authorisation, and the renewal of a licence, right or other form of authorisation in terms of the Mineral (Prospecting and Mining Act of 1992.	Establishment of camping area for staff and other supporting infrastructure for the project.
3.2	Other forms of mining or extraction of any natural resources whether regulated by law or not.	Possible sampling from drilling activities is a form of extraction of a natural resource.
4	The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in term of the Forest Act, 2001 (Act No. 12 of 2001) or any other law.	When lateral expansion is required the removal of trees will be done in association with the Directorate of Forestry that issue permits.
8.1	The abstraction of ground or surface water for industrial or commercial purposes.	If this is possible, water will be abstracted from a borehole for use during Prospecting Phases. Relevant permits will be in place as required by the Department of Water Affairs (DWA).
9.1	The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance 1974	Possible storage of fuel/diesel on site.

9.4	The storage and handling of a dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location	Petroleum Products Regulations No 2000: Section (3) (2) No person shall possess or store any fuel except under authority of a licence or a certificate
9.5	Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin.	Petroleum Products Regulations No 2000: Section (3) (2) No person shall possess or store any fuel except under authority of a licence or a certificate

Additional pertinent legislation and policies which have (generally) informed the EA are listed in **Table 3**. Reference is made regarding the applicability of each law to this project.

Air pollution in Namibia was governed by the Atmospheric Pollution Prevention Ordinance (No. 11 of 1976) which mainly focused on the impact of air pollution emitted from point sources on occupational health and safety. It was limited in that it did not consider the impact of emissions from multiple air pollution sources on the surrounding environment nor did it address ambient air quality issues. The Atmospheric Pollution Prevention Ordinance (No. 11 of 1976) was then replaced by the Pollution Control and Waste Management Bill which considers emissions from multiple air pollution sources and their impact on the surrounding environment. Although the bill makes provision for air quality standards, Namibia does not have any air quality standards that can be implemented at present. Therefore, according to Article 144 of the Namibian Constitution, international standards may be adopted.

Namibia’s Environmental Assessment Policy for Sustainable Development and Environmental Conservation (1995) as well as the Draft Procedures and guidelines for EIA & EMP of 2008 requires the following steps in an Environmental Impact Assessment Procedure:

1. Project identification & conceptualisation
2. Appoint work to an environmental assessment practitioner
3. Development of proposal through consultation
4. Application with baseline scoping report and draft environmental management plan
5. Notification with baseline report and terms of reference for full EIA
6. Review of applications & registrations
7. Full investigation, EIA Report and draft environmental management, Mitigation plan(s)
9. Application with full EIA and draft environmental management plan
10. Conditions and approval
11. Record of Decisions
12. Appeal (if necessary)
13. Implementation of proposal
14. Monitoring, auditing and ongoing mitigations

The legal matrix of the project not only promotes sustainable development, but does so within the consideration of local, regional and national planning and development initiatives. It further serves to ensure that the health and safety of communities and workers are brought into the EMP. These procedures will be followed for the project described in the following section.

Table 3 - Additional National and International Legislation

Legislation / Policy	Summary	Applicability to Assessment	Included in Report
National Legislation			
The Namibian Constitution	<ul style="list-style-type: none"> ➤ Promote the welfare of people, ➤ Incorporates a high level of environmental protection, ➤ Incorporates international agreements as part of Namibian law. 	All proposed development should aim at promoting the welfare of all people in a sustainable manner.	Principles of sustainable development and protection of the environment are enshrined in the objectives and goals of impact minimisation for adverse impacts.
Environmental Management Act Act No. 7 of 2007, Government Notice No. 232 of 2007	<ul style="list-style-type: none"> ➤ Defines the environment, ➤ Promote sustainable management of the environment and the use of natural resources, ➤ Provide a process of assessment and control of activities with possible significant effects on the environment. 	The proposed project is listed in the EMA regulations which require an application for an ECC.	The project has been registered with MEFT and the final SR and EMP will be submitted in support of an ECC application.
Soil Conservation Act (Act No. 76 of 1969)	<ul style="list-style-type: none"> ➤ Law relating to the combating and prevention of soil erosion, the conservation, improvement and manner of use of the soil and vegetation and the protection of the water sources Namibia. ➤ This Act covers the prevention and combating of soil erosion; the conservation, improvement and manner of use of the soil and vegetation; and the protection of water sources. 	Infrastructure development of the proposed project will inevitably impact on the soils and further pose risks to soil contamination in the construction and Prospecting Phases.	Principles of soil conservation and pollution prevention have been included the EMP which will be submitted in support of an ECC.
The Water Act Act No. 54 of 1956	<ul style="list-style-type: none"> ➤ Remains in force until the new Water Resources Management Act comes into force, 	Water will be used during the construction, operational and decommissioning phases. The proponent is	Mitigation measures relating to water contamination are described in the EMP for the

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	<ul style="list-style-type: none"> ➤ Defines the interests of the state in protecting water resources, ➤ Controls the disposal of effluent, ➤ Draft regulations are being reviewed 	yet to decide if water used will be stored in water tanks filled from the local service provider or ground water will be abstracted from a borehole, in such instance a water abstraction permit is required. A water registration / permit is also required for the disposal of wastewater.	construction and Prospecting Phases.
Water Resources Management Act Act No. 11 of 2013	<ul style="list-style-type: none"> ➤ Provide for management, protection, development, use and conservation of water resources, ➤ Prevention of water pollution and assignment of liability, ➤ Not in force yet. 	Water will be used during the construction and Prospecting Phases for construction purposes as well as sewage management. No water will directly be sourced from a river or dam.	Mitigation measures relating to water contamination are described in the EMP for the construction and Prospecting Phases.
Local Authorities Act Act No. 23 of 1992, Government Notice No. 116 of 1992	<ul style="list-style-type: none"> ➤ Define the powers, duties and functions of local authority councils, ➤ Regulates discharges into sewers. 	EMA requires public participation inclusive of NGO's, local and regional government and IAPs.	Local and regional offices have been invited to participate in the application process.
Public Health Act Act No. 36 of 1919	<ul style="list-style-type: none"> ➤ Provides for the protection of health of all people. 	The proposed project may have health impacts on labourers and surrounding communities.	Health and safety measures have been incorporated into the EMP of the proposed project
Labour Act Act No 11 of 2007, Government Notice No. 236 of 2007	<ul style="list-style-type: none"> ➤ Provides for Labour Law and the protection and safety of employees, ➤ Labour Act, 1992: Regulations relating to the health and safety of employees at work (Government Notice No. 156 of 1997). 	The proposed project will require labour.	Measures to ensure that the requirements of the labour act are met have been included in the EMP.

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<p>Electricity Act, 2007 (Act No. 4 of 2007)</p>	<ul style="list-style-type: none"> ➤ The Electricity Act aims to establish the Electricity Control Board and provide for its powers and functions; to provide for the requirements and conditions for obtaining licences for the provision of electricity; to provide for the powers and obligations of licensees; and to provide for incidental matters. Under section 17, no person may establish or carry on any undertaking for - ➤ (a) the generation of electricity. ➤ (b) the trading of electricity. ➤ (c) the transmission of electricity. ➤ (d) the supply of electricity. ➤ (e) the distribution of electricity. ➤ (f) the importation of electricity; or ➤ (g) the export of electricity, ➤ Unless such person holds a licence issued under this Act that authorises the particular activity. 	<p>The proposed project will obtain electricity produced from diesel generators on site.</p>	<p>Health and safety measures for the use and storage of fuel on site have been incorporated into the EMP of the proposed project</p>
<p>Road Traffic and Transport Act Act No. 52 of 1999 Government Notice No 282 of 1999</p>	<ul style="list-style-type: none"> ➤ Provides for the control of traffic on public roads and the regulations pertaining to road transport. 	<ul style="list-style-type: none"> ➤ Roadworthiness, ➤ Fitness for drivers , ➤ Loads on Vehicles, ➤ Transportation of Dangerous good, ➤ Road traffic signs, ➤ All vehicles to adhere to the provisions of the act. 	<p>As part of the Health and Safety mitigation measures in the EMP: Road traffic signs to be erected during the Initiation Phases and maintained during the Prospecting Phase.</p>
<p>National Heritage Act Act No. 27 of 2004, Government Notice No. 287 of 2004</p>	<ul style="list-style-type: none"> ➤ Provides for protection and conservation of places and objects of heritage significance and the registration of such places and objects. 	<p>Although no sensitive archaeological or heritage features have been identified in the area, such artefacts may be discovered during project activities.</p>	<p>Chance finds procedures of possible heritage / archaeological finds have been included as a condition to be conducted in the EMP.</p>

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<p>Hazardous Substances Ordinance Ordinance No. 14 of 1974</p>	<ul style="list-style-type: none"> ➤ Applies to the manufacture, sale, use, disposal and dumping of hazardous substances as well as their import and export. ➤ Aims to prevent hazardous substances from causing injury, ill-health, or the death of human beings. 	<p>Various hazardous substances will be used during some phases of the proposed project.</p>	<p>Handling, storage and disposal of such substances have been identified as per specific impacts as per the SR and EMP which details management measures for hazardous substances throughout the project.</p>
<p>Pollution Control and Waste Management Bill (draft document)</p>	<ul style="list-style-type: none"> ➤ Not in force yet, ➤ Provides for prevention and control of pollution and waste, ➤ Provides for procedures to be followed for licence applications. 	<p>Various waste streams will be generated. These include possible chemical and physical pollution.</p>	<p>Waste management measures have been highlighted in this report and management measures have been included in the EMP.</p>
<p>Legislation / Policy</p>	<p>Summary</p>	<p>Applicability to Assessment</p>	<p>Included in Report</p>
<p>International Law</p>			
<p>Stockholm Declaration on the Human Environment, Stockholm 1972.</p>	<ul style="list-style-type: none"> ➤ Recognizes the need for a common outlook and common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment. 	<p>The proposed development is near various settlements.</p>	<p>Identifying potential impacts of the project. The EMP has measures to mitigate negative impacts and enhance positive impacts</p>
<p>United Nations Framework Convention on Climate Change (UNFCCC)</p>	<ul style="list-style-type: none"> ➤ The Convention recognises that developing countries should be accorded appropriate assistance to enable them to fulfil the terms of the Convention. 	<p>Some emissions may be released during the Prospecting Phase of the proposed development.</p>	<p>Emissions are planned to fall outside of the World Health Standards. Should such parameters be exceeded all necessary steps are to be taken to reduce emissions as mentioned in this report.</p>

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<p>Convention on Biological Diversity, Rio de Janeiro, 1992</p>	<p>➤ Under article 14 of The Convention, EIAs must be conducted for projects that may negatively affect biological diversity.</p>	<p>The site might have sensitive features.</p>	<p>Aspects of the biodiversity has been included in this report and EMP.</p>
<p>United Nations Convention to Combat Desertification (UNCCD)</p>	<p>➤ Aims at land management and combating desertification/land degradation to contribute to the conservation and sustainable use of biodiversity and the mitigation of climate change.</p>	<p>Infrastructure development of the proposed project will impact on the soils and further pose risks to soil contamination in the Prospecting Phases.</p>	<p>Principles of soil conservation and pollution prevention have been included the EMP which will be submitted in support of an ECC.</p>

4 PROJECT DESCRIPTION

4.1 PROJECT RATIONALE / NEED AND DESIRABILITY

This project has the potential to earn foreign currency and to contribute to the Kunene region's economy. In doing so, it will contribute to the socio-economic development in the area by providing jobs and providing opportunities for continued diversification of economic activities.

Potential direct benefits of the project include:

- Direct capital investment
- Stimulation of economic development
- Skills development and employment
- Foreign exchange earnings
- Value adding to Namibian raw materials.

Potential indirect benefits of the project include:

- Expansion of trade and industrial activity in the town and region.
- Inducement of additional investments
- Diversification of the regional and national economy.
- Infrastructure development and maintenance

4.2 NATURE & SIZE OF THE PROJECT

The EPL covers approximately 98,277.57 hectares and is located on communal land approximately 105 km northwest of Opuwo town, near the Etanga settlement in the Kunene region. The Proponent plans to conduct explorations activities for base and rare metals, dimension stone, industrial minerals, non-nuclear fuel minerals, nuclear fuels minerals, precious metals and semi-precious stones. The use of the surrounding land agricultural. EPL7873 licence lies within portions of Orupembe, Sanitatas, Okondjombo, Etanga and Otjitanda communal conservancies.

4.3 LOCATION DETAILS

Error! Reference source not found. gives the location of the EPL boundaries relative to the Orupembe, Sanitatas, Okondjombo, Etanga and Otjitanda communal conservancies area. The EPLs geographic corner coordinates are presented with Table-1 rendered above.

4.4 ACCESSIBILITY

The area is situated at a distance of about 105 km north-west of the town of Opuwo. To get to the EPL one must travel along district road D3707 to the west from Opuwo. The turn off to the D3707 is located about 24 km north of Opuwo along the C43 main road Please refer to Figure 2 & Figure 3

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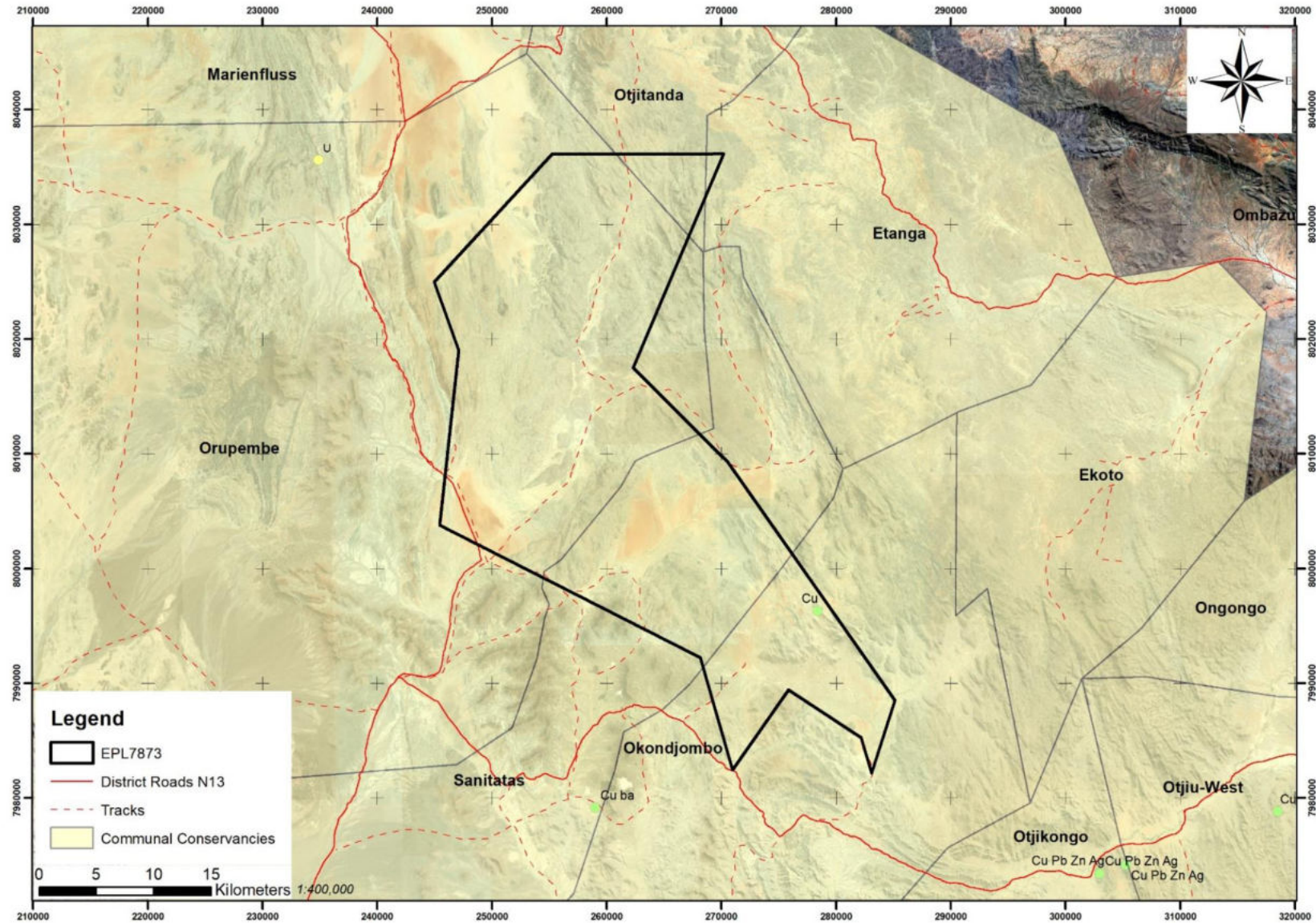


Figure 2 - Map showing access to the site.

4.5 PROPOSED PROJECT PLAN

4.5.1 Planning Phase

Planning entails the procurement of all required permits and finalising of the operational plans for the exploration program. Contractual agreements such as the appointment of sub-contractors are dealt with in the latter part of the planning and operational prospecting phase. Discussions with various state and parastatal agencies will be held regarding the various project components and permitting matters. These discussions will result in various agreements. Potential agencies which could be consulted include the following:

- Kunene Regional Council
- Ministry of Agriculture, Water & Land Reform (MAWLR)
- Ministry of Lands Resettlement and Rehabilitation (MLRR)
- Ministry of Mines and Energy (MME)
- Ministry of Environment Forestry & Tourism (MEFT, this application)
- Various Conservancy committees and Traditional authorities

Apart from securing various agreements, as required, with the institutions as mentioned above, continual planning involves the finalising of the project scope and related components. Key to informing these (project components and scope) are professional input obtained from the project team. This report is a typical example.

4.5.2 Initiation Phase

The initiation phase activities will aim at establishing temporary structures to support project activities and will be commencing upon receipt of the ECC, physical licence and other relevant permits, and upon successful agreements between the proponent and landowners including all necessary institutions.

4.5.3 Prospecting Phase

The exploration programme is targeting meta-sediments of the Nosib and Otavi Groups in which the presence of base metals such as copper (Cu), zinc (Zn), and lead (Pb) as well as cobalt (Co), precious metals, nuclear fuel minerals and semi-precious stones might occur. Copper-silver-cobalt mineralization can be stratabound and might be hosted by the uppermost arkosic sandstone of the Nosib Group with interbedded limestone and dolostone of the Otavi Group.

Other targets include areas where rock outcrops and extensions of the Epupa Metamorphic Complex might be present. This units have potential to host numerous minerals such as nickel, chromium, cobalt, rare earths, iron and titanium. The ground of the EPL renders good prospectivity for the above mineralisation.

During this phase, a provisional field camp is planned with basic infrastructure maybe established as required for operations within an area of the EPL, such providing accommodation on site. Any infrastructure will be erected with the permission of the land custodians in the area, i.e., the Traditional Authority over the land, e.g. the proclaimed Headman. The accommodation area will be demarcated so as to limit the movement of equipment and personnel beyond the footprint of the camp area, and also to limit the movement of animals onto the site from the surrounding.

Existing access roads will be utilized and if need be, upgraded to accommodate heavy motor vehicles and operational machines. The selective clearing of vegetation in areas designated for surface will be minimal from the foreseen operations. Usually, land is cleared at areas where drilling operations will be conducted. When lateral expansion is required the removal of trees will be done in association with the Directorate of Forestry that issues the relevant permits.

Solid waste will be removed off site and taken to the nearest dumpsite. Toilets need to be established, with septic tanks to be emptied regularly using a tanker truck which removes the sewerage and takes

it to the municipal sewerage works. For a longer-term field camp arrangement, a French drain system could be devised and constructed.

No power supply infrastructure to the site is planned. Temporary handling and storage areas for construction materials is planned at the camp site. The support services and facilities constructed during this phase will either be removed at the end of the Prospecting Phase or incorporated into the further phases of the project.

The projected mineral exploration activities during prospecting follow a staged approach. The different work aspects and consecutive phases are summarized as follows:

4.5.3.1 Desk top studies (Non-Invasive)

High resolution data are purchased from the Ministry of Mines and Energy (MME) to assist in a desktop review of existing historic geological exploration reports data as well as all past research conducted in the general area to see if there are any prospective targets. The data available is used to understand the background of the area through remote sensing and topographic surveys.

4.5.3.2 Geological reconnaissance

This includes field-based activities such as regional mapping and sampling in order to identify and validate prospective targeted areas identified during the desktop studies phase. This stage incorporates geochemical analyses, geochemical soil sampling programs, additional ground geophysical surveys. Activities will require field camping, on the fly or on a short-term camp basis. When target areas are determined, drill pads may be established where these then require clearing of trees and shrubs. Should sensitive/protected species be present in the target area a trees removal and clearing permit is applied for through the Department of Forestry (DoF).

4.5.3.3 Field-based intrusive activities

These include further sampling through drilling, pitting and trenching as well as geochemical sampling to verify the feasibility of any identified target. The degree or depth of exploration carried out during this stage is contingent on the discovery of viable/prospective mineral targets and target areas.

Drilling

The most commonly used drilling techniques are Reverse Circulation Drilling (RC) or Diamond Drilling. Both methods are applied in exploration, resource evaluation and subsequently in defining an ore reserve.

Exploration Diamond Drilling differs from other geological drilling in that a solid core is extracted from depth, for examination on the surface. The key technology of the diamond drill is the actual diamond bit itself. It is composed of industrial diamonds set into a soft metallic matrix. The drill produces a "core" which is logged, photographed and which can be split longitudinally for sampling purposes. Half of the split core is assayed while the other half is permanently stored for future use and reference.

RC Drilling uses a pneumatic hammer, which drives a rotating tungsten-steel bit. The technique produces an uncontaminated large volume sample, which is comprised of rock chips. It is relatively quick and cheap compared to Diamond Drilling.

4.5.3.4 Advanced Exploration

In the advanced stage of exploration, larger amounts of rock sample material may be required for performing processing trials and for metallurgical testing programs. Ground conditions and geotechnical parameters also need to be established for planning and costing purposes.

Bulk sampling for metallurgical tests and processing trials will be done to compliment the material obtained during drilling. Possibly, pits or trenches are to be dug / excavated to a depth of 5m, and several hundred cubic meters of samples are taken. Location of the pits will depend on the drilling

results and will be in close proximity where drilling. The size of the sample required depends on the nature of the mineralisation as observed from drilling and sampling.

Pre-Feasibility and Feasibility Studies

If the detailed exploration activities yield positive results, the exploration data will be compiled into a pre-feasibility report, and upon positive results from further work, a detailed feasibility study will be conducted on the identified site-specific area where a mineral deposit is defined.

Additional detailed and site-specific drilling, bulk sampling, and laboratory testing, and trial mining may be conducted.

4.5.3.5 Mining Licence Application or End of exploration Program

Only if an economic mineral resource is discovered within the EPL area, the proponent will compile an application for a mining licence and a detailed environmental impact assessment study will be undertaken. The EIA will comprise of detailed site-specific specialists’ studies of different aspects of the project these studies may include the following impact assessments; Hydrology and geohydrology, archaeology, air quality, traffic, biodiversity (fauna & flora), visual and soil etc.

Should there be no discovery of any economic minerals that warrants a Mining Licence, the proponent can decide to end the operations of the project and the area is rehabilitated.

It is anticipated that the following personnel will be employed, and machinery/vehicles used to carry out the above-mentioned activities.

Table 4 - Personnel and Equipment requirements

ACTIVITY	ANTICIPATED PERSONNEL	MACHINERY/VEHICLES (APPROXIMATE)
Geological Mapping	Up to 30 (i.e., Geologists, Geophysics, Geo-technician and locally employed skilled and non-skilled workers)	2-4 light vehicles (i.e., 4x4 bakkies)
Sampling (e.g., Soil)		
Ground Geophysical works		
Road Building	Up to 50 (i.e. locally employed skilled and non-skilled workers)	2-4 light vehicles (i.e., 4x4 bakkies)
Drilling Operations	10 - 15 (i.e., Geologists, Geo-technician and locally employed skilled and non-skilled workers)	2-4 light vehicles (i.e., 4x4 bakkies and trucks) Reverse circulation (RC) drill truck mounted, compressor and support trucks. Diamond core drilling rig mounted on tracks, 6x6 water truck, 6x6 support truck. Light duty support trucks and for crew transport.

Operations are scheduled to operate 10 hours a day (7am to 5pm) Monday to Friday and (07am to 1pm) on Saturdays. The personnel will be transported to and from the operational site by company transport.

4.5.4 Decommissioning Phase

This will mainly focus on the removal of any temporary infrastructure, rehabilitation of roads and other linear infrastructure, drill sites and bulk sampling pits, as necessary. As such, construction and subsequent rehabilitation measures will be conducted in accordance with the best practices supported by the Department of Forestry.

4.5.5 Operational Support Services

4.5.5.1 *Water supply*

Water supply sources being considered are either.

- Ground water abstraction; and
- NamWater

The proponent does not expect to use much water, as the only main activities are for camp use and for drilling. It is suggested that amounts of water can be sourced from the nearest NamWater supply scheme or from one of the surrounding neighbours or community boreholes and then be trucked to the exploration site, as there is no existing infrastructure on site for the water utility company, this is the preferred option.

If for any reason more water is required then the proponent suggests abstraction of ground water, which can be done at minimal extraction cost, a borehole can be sunk to augment supply volumes. However, for this option groundwater exploration would need to be undertaken followed by the required permit application process.

4.5.5.2 *Power Supply*

No infrastructure development to get electricity from the national grid has been planned. All mobile equipment is diesel driven and self-propelled. Static equipment will use electricity generated by diesel generators. A small field of photovoltaic panels is also envisaged for power generation in the medium term.

4.5.5.3 *On-Site Fuel Storage*

Diesel storage at the site will be only temporary and intermittent during drilling and bulk sampling operations. Fuel will be stored in a bunded fuel tank system, conveniently placed and accessible for deliveries. This facility will be of modern construction, either double-skinned or bunded to ensure spills are prevented.

Delivery systems will use sealed fittings to prevent spillage. The fuel facilities is to be actively manned. Standardised spill kits and reporting systems will be in place to deal with any hydrocarbon spills. Contaminated soils will be transferred to a remediation site, which is specifically designed for such treatment.

4.5.6 No Go Project Option

Not conducting exploration will deprive the proponent an opportunity to pursue its business and to strive for mineral resource discoveries, but it will also constitute an opportunity loss for the Namibian economy and overall wealth of the Namibian people. As such it will also deny other key stakeholders an opportunity to earn much needed income. The local authority and central government agencies will not earn revenue through rates and taxes.

4.5.7 Studies Completed

No specialist survey of the physical, chemical and biological characteristics of the EPL were done. However, a number of studies have been completed for other projects within the larger area and Opuwo surroundings. Though not a site-specific baseline study as such, this report represents a

reference point for comparing any current and future data collected. This will be the subject of the section on monitoring recommendations.

5 PUBLIC CONSULTATION

The Environmental Management Act and the Environmental Assessment Regulations (MEFT, 2012) require that the proponent provide the public with details of the project during a public participation process. Consultation with the public forms an integral component of an EA and enables Interested and Affected Parties (IAPs) e.g., neighbouring landowners, local authorities, environmental groups, civic associations and communities, to comment on the potential environmental impacts associated with the proposed operations and to identify additional issues which they feel should be addressed in the scoping phase. Consultation was initiated and facilitated through press notices and face to face discussion with the traditional authority.

5.1 NOTIFICATION

5.1.1 Press Notices

Press notices were placed in three widely distributed newspapers for two consecutive weeks providing details of the project whilst giving the public an opportunity to register as I&APs. Notices appeared in The Sun, Allgemeine Zeitung, and Die Republikein newspapers on the 01st of November 2022 and 16th of November 2022. Copies of the newspaper notices are attached in **Appendix C**.

5.1.2 Notification Letter

A notification letter was hand delivered to the Kakurukouje Traditional Authority (Chief Vemui Tjambiru) to inform the community about the project. Request was made that they provide comments or concerns. A consent letter from the Traditional Authority in support of Kunene Resources was provided to the proponent confirming and accepting the prospecting program on EPL 7873. The consent letter can be found in **Appendix E**.

5.1.3 Background Information Document

A Background Information Document (BID) was provided to the various I&APs through the initiation public participation process. This document gives an overview and non-technical summary of the proposed development and acts as an easy reference to the proposed project. The BID is included in **Appendix B**. The draft EIA and EMP will be circulated to the registered stakeholders in order to provide their further input and comments before submission to the authorities.

5.2 BUILDING A STAKEHOLDER DATABASE

During the initiation phase and the overall public consultation, IAPs were made aware of their rights to provide input into the assessment process through registering with the project and providing comments and concerns. This invitation appeared on all the notices as mentioned above and resulted in parties registering on the project. Combining the registered parties with those already identified to be possible IAPs (which received notification letters) cumulated in the stakeholder list for the project. All parties on this list received and will continually receive information about the ECC application as well as an opportunity to comment on this report. A list of registered I&APs and their comments, issues or concerns are provided in **Appendix D**.

5.3 PPP OUTCOMES

A discussion was held between the company's chief geologist and the Kakurukouje Traditional Authority (Chief Tjambiru) on the 9th of July 2022 to discuss the project plans and the way forward. Briefly, the comments received were concerning the following issues:

- Concerns about the socio-economic improvements that the project will bring to the area (employment) to develop the skills of the community members, especially the youth.
- Further information will be provided after the draft documents are shared with the stakeholders for their input and commentary.

6 DESCRIPTION OF THE ENVIRONMENT

This section lists the most important environmental characteristics of the study area.

6.1 GEOLOGY

6.1.1 Regional Geology

The geology of comprises units of the Huab Basin group which forms part of the Karoo Supergroup and surrounded by outcrops of the Epupa, Huab and Abbabis Metamorphic Complexes (Cx), which is the oldest lithological unit in Namibia (2 600-1 650 Ma) (Figure 7). The Karoo supergroup is the most widespread stratigraphic unit in Africa south of the Kalahari Desert. The supergroup consists of a sequence of units, mostly of nonmarine origin, deposited between the Late Carboniferous and Early Jurassic, a period of about 120 million years (Mendelsohn et al, 2002).

6.1.2 Local Geology

The ground under application is located within the central part of the late Neoproterozoic Kaoko Copper Belt in Northern Namibia. The basement rocks comprise of granitic gneisses, paragneiss, amphibolites and minor basic rocks of the Epupa Metamorphic Complex overlain unconformably by metasedimentary rocks of the Damara Supergroup belonging to the Nosib and Otavi Groups and the younger sediments of the Kalahari Group which forms the surficial cover in the area. A portion of the EPL ground is covered by rocks which belongs to the Epupa MC.

The Nosib Group is subdivided into a lower conglomerate-sandstone, middle siltstone, and upper sandstone-conglomerate reflecting increasing marine ingression across a continental landscape. It comprises of quartzite, meta-arkose, conglomerate, limestone, shale, ironstone and gneiss. The Otavi Group overlies conformably the Nosib Group and consists of interbedded limestone and dolostone rocks. Rocks of the Nosib and Otavi Groups follows a regional shear zone which strikes towards north-west. The lower part of the Chuos Formation is marked by diamictite which form the base of the Abenab Subgroup. Rocks of the Chuos Formation are often highly ferruginous and contains layers and lenses of ironstone as well as abundant clasts of granite and gneiss.

6.2 SOILS

The topsoil in the area is largely absent where the surface is covered with rocky outcrops within most of the perimeter surface area of the EPL, with petric calcisols present on the upper northern and lower southern boundaries of the EPL. Petric calcisols is a combination of petrified soil which contains accumulations of calcium carbonate, often in a cemented form called calcrete (Mendelsohn et al., 2002). Although calcisols are potentially fertile, the soil within the EPL comprise a solid layer at a shallow depth that remains hard, even at depth (Mendelsohn et al., 2002). The sources of dust associated with the proposed exploration activities are land clearing and the creation of access roads if necessary. These activities may have a minor impact on the neighbouring community.

6.2.1 Petric Calcisols

These soils have a substantial accumulation of carbonates which form a cemented layer that starts at less than or equal to 100cm from the soil surface. These soils are associated with calcareous parent materials. The landform for this soil type is the valley floor, with a gradient of less than 10% (SLR, 2019).

6.3 HYDROLOGY / DRAINAGE

The regional hydrological setting of the project falls in the Kunene, Khumib and upper reaches of the Hoarusib Catchments which comprises parts of the Kunene North groundwater basin. These river catchments are the three northernmost of the twelve major westerly flowing ephemeral river systems that occupy the hyper- to semi-arid areas of western Namibia (Fennessy, 2009).

The project site and adjacent areas are reliant on a network of small drainages emerging from the surrounding hills. The main flow originates from the Otjinjange, Khumib and Hoarusib rivers through the project area. The Hoarusib River flows in a south-western direction before ending up in the ocean to the west. This is an ephemeral river with episodic flows (less than 25% of the year) and is linked to the high rainfall events during summer months. Groundwater flow in the area takes place mainly along fractures and contact zones within hard rock formations.

6.4 GROUNDWATER AND AQUIFERS

No site-specific data was available for this project. The area is underlain by a generally low productive and fractured aquifer with an increased potential where fractures and faults (crevices) occur on a local scale, in the absence of drought conditions. There is approximately ten (10) registered boreholes overlapping the EPL. It is assumed that water will be obtained from either of these existing boreholes during the exploration activities. Considering the nature and scale of the proposed exploration, drilling is unlikely to adversely impact groundwater.

Should the project require the drilling and abstraction of water from an additional borehole, an application must be submitted to the Ministry of Agriculture Water and Land Reforms (MAWLR). The entire area is dependent on groundwater resources (from boreholes and springs) for domestic purposes and stock watering. The proponent will need to ascertain through drilling a borehole whether there is sufficient yield for human consumption, ablutions, construction and other needs.

6.5 CLIMATE

6.5.1 Temperature

The climate of the Kunene Region is classified as semi-arid (tropical steppe) to very arid (desert). Maximum and minimum temperatures at Opuwo where the nearest weather station is during the hottest and coldest months range between 34 to 36 °C and 6 to 11 °C, respectively. Kunene region is one of the warmest regions with high temperatures (warm and hot) throughout the year. Hot seasons in these areas last for almost 4 months, which is during September to early January and average daily temperatures being 34.4 °C (Figure 4). Throughout the year, the hottest month is October - November, temperatures here are higher than the country's average by 3.29%. Relative humidity in the Opuwo area ranges between 80 to 90% during the most humid months and between 10 and 20% during the least humid months. The average annual rates of evaporation in the Opuwo area range between 1,960 and 2,100 mm (Mendelsohn et al., 2009)

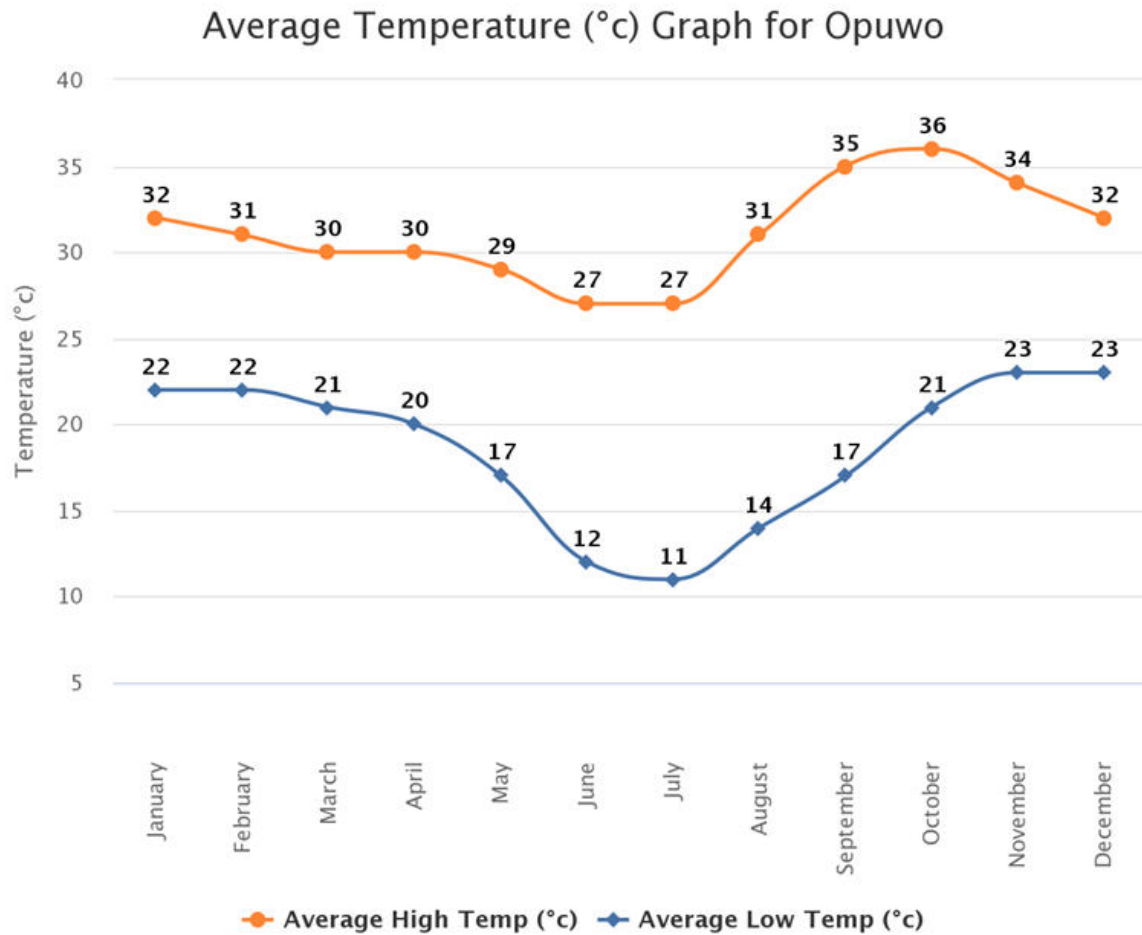


Figure 4 - Average high and low temperature for Opuwo (www.worldweatheronline.com)

6.5.2 Wind

The Namibia wind direction, and the variability in wind direction, determines the general path air pollutants will follow, and the extent of crosswind spreading. Wind experienced at any locality is highly reliant on local geography plus possibly other factors (direction, hourly and speed). The seasonal variability in the wind field is shown in Figure 5. The seasonal wind field is predominantly south-westerly and west-south-westerly winds during the summer months (Nov – Feb). During the autumn months (Mar – May), the westerly flow subsided with more frequent winds from the east and east-northeast (SLR, 2019). The maximum windspeed recorded for Sesfontien (Nearest station) in the figure below ranges from 5 – 6.9mph western wind. Variations to the described patterns may occur due to proximity and landscape variations between the chosen weather station and the project site. Specific behaviour of personnel and surrounding communities can be planned to reduce exposure to dust.



[FYSF] Sesfontein
Windrose Plot
Time Bounds: 15 Nov 2010 02:00 PM - 16 Sep 2018 02:00 PM Africa/Windhoek

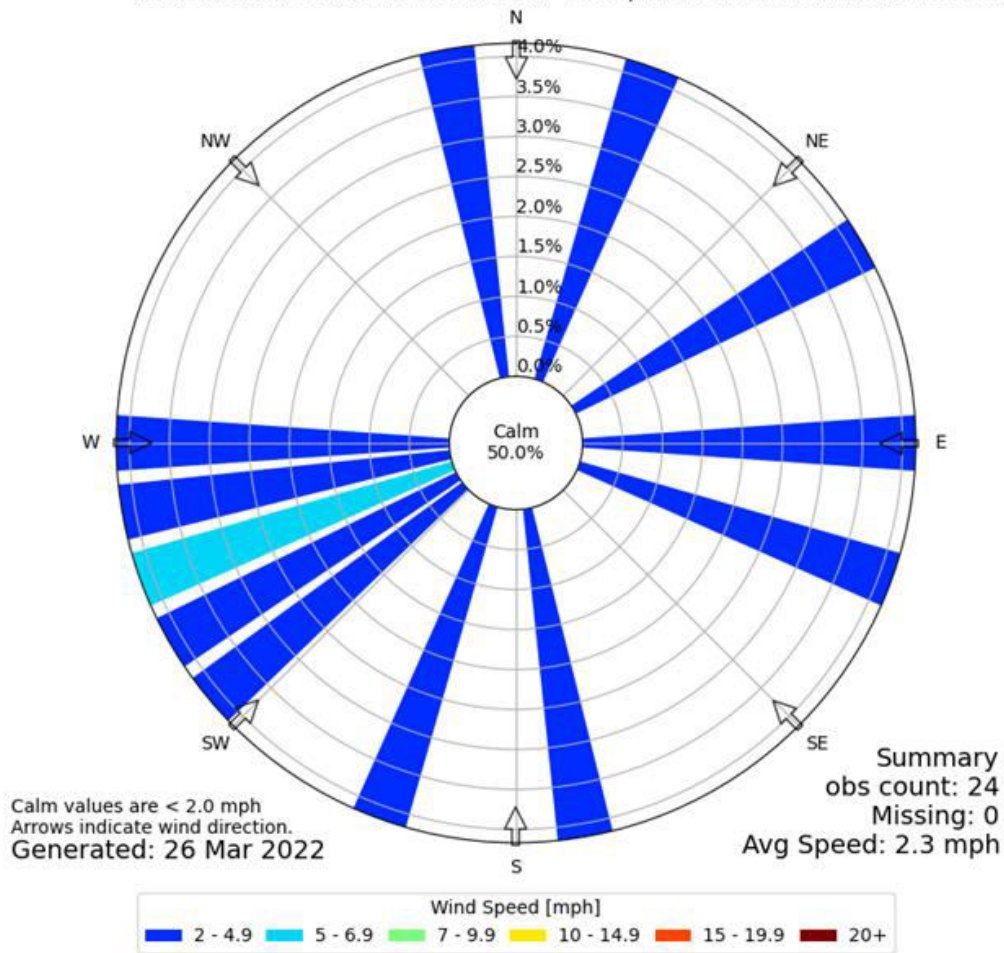


Figure 5 - Windrose for Sesfontien November 2010 to September 2018 (Iowa weather, 2022)

6.5.3 Rainfall

The mean annual precipitation (MAP) in Opuwo is approximately 312 mm/annum for the record period, with a maximum rainfall recorded of 837 mm/annum in 1963 and a minimum of 62 mm/annum in 1989 (SLR, 2019). The rainy season is between December and March, with the dry season from May to September (Figure 6). Precipitation increases from the west to the east of the Kunene Region and ranges between less than 50 mm (at the coast), 300 to 350 mm (at Opuwo), and 350 to 400 mm (at Ruacana, Omusati Region) per annum.

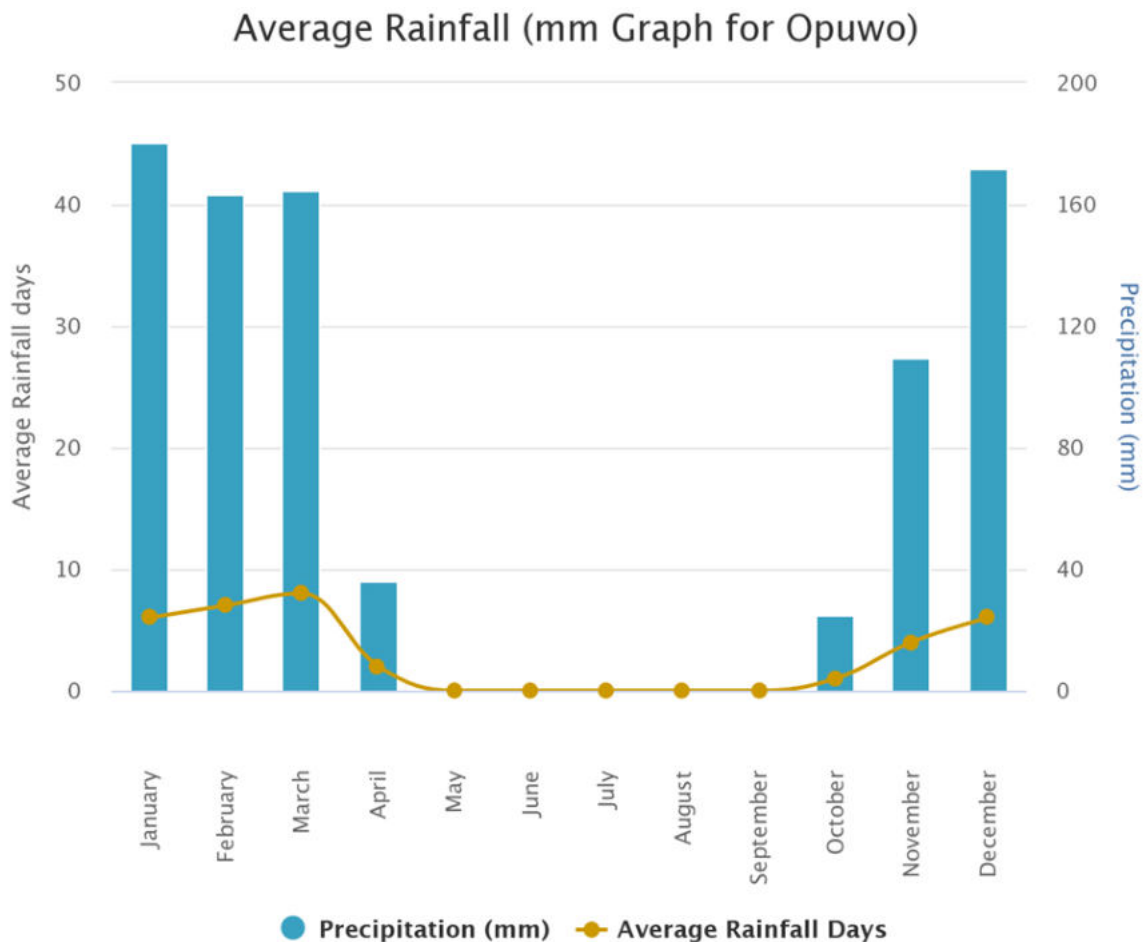


Figure 6 - Average rainfall in Opuwo (www.worldweratheonline.com)

6.6 BIOLOGICAL ENVIRONMENT

6.6.1 Flora

The Atlas of Namibia and other secondary sources provided the necessary information, as there was no fieldwork conducted for this aspect of the study. The study area lies within the Kaokoveld that falls under the Mopane Savanna vegetation biome as defined by (Giess, 1998). The vegetation type in the area is western high lands which is subsequently dominated by various shrubs and tree species.

Generally, Flora in the Kaokoveld is relatively under collected (as the area is highly inaccessible) and the flora of especially the high mountain ranges is largely unknown. The Kaokoveld as a whole is famous for its floristically diversity area with high levels of plant endemism ascribed to diversity in soils, topography and climate (Craven, etc., 2006). Should mining be contemplated a specialist botanical study would be called for.

According to Mendelsohn (2002), overall plant species richness in the general area is low to medium (approx. 300 to 400 spp.). The vegetation within the study site was found to be dominated by red thorn acacia (*Acacia Reficiens*), mopane (*Colophospermum mopane*) and purple pod terminalia (*Terminalia prunioides*). Various Commiphora species, *Moringa ovalifolia*, *Sterculia africana* and *Sesamothamnus guerichii* can also be found in the general area.

Some species of conservation concern which may potentially occur in the general area are: Camel-thorn (*Acacia erioloba*); Welwitchia (*Welwitchia mirabilis*) Bird-plum (*Berchemia discolor*); Shepherd's tree (*Boscia albitrunca*); Mopane (*Colophospermum mopane*); Leadwood (*Combretum*

imberbe); *Elaeodendron transvaalensis*; Wild ebony (*Euclea pseudebebus*); Namaqua rock-fig (*Ficus cordata*); Sycamore fig (*Ficus sycomorus*); and African star-chestnut (*Sterculia africana*). It is important to note that *Elaeodendron transvaalensis* is not protected under the (Namibian) Forest Regulations 2015: Forest Act 12 of 2001.

Commiphora multijuga and *Moringa ovalifolia* may also be present in the area and they are expected in low numbers. Mopane trees are prevalent in this habitat, and it is protected due to its high value to humans and their livestock. The following tree species are protected under the (Namibian) Forest Regulations 2015 and may occur in the general project areas: Bushman poison (*Adenium boehmianum*); Worm-cure Albizia (*Albizia anthelmintica*); various *Commiphora* species; Kobas (*Cyphostemma currorii*); Blue Kobas (*Cyphostemma juttae*); Kaoko Kobas (*Cyphostemma uter*); Owambo Wooden-banana (*Entandrophragma spicatum*); Namib Coral-tree (*Erythrina decora*); Anaboom (*Faidherbia albida*); Kaoko kirkia (*Kirkia dewinteri*); Bottle Tree (*Pachypodium lealii*); Marula (*Sclerocarya birrea*); Kaoko Sesame-bush (*Sesamothamnus benguellensis*); Large-leaved Sterculia (*Sterculia quinqueloba*); Wild Tamarisk (*Tamarix usneoides*); and Buffalo-thorn (*Ziziphus mucronata*) (see <http://treemap.biodiversity.org.na/>).

Some bush clearing may be required during the 2nd and 3rd phase of exploration where access roads, drill pads and bulk sample sites are chosen. The clearing of any vegetation would not be on the scale, which triggers a full EIA, but permits to fell trees and clear bush for exploration will require a Forestry Permit. In addition to this, vegetation clearing restrictions within 100m of rivers must be taken into account as outlined in the draft regulations of the Water Resource Management Act (Rothauge 2017). Any relaxation of this rule needs to be confirmed and approved by the Ministry of Agriculture, Water and Land Reform (MAWLR).

The draft EMP has made recommendations aimed at reducing and controlling potential disturbances so that the disturbances to flora are kept to a reasonable minimum and that activities are contained within the exploration activity areas as far as possible.

6.6.2 Fauna

No fieldwork was carried out; hence the fauna data presented in this section is solely from existing literature. The area is viewed as a relatively high mammal, reptile and intermediate amphibian diverse (Mendelsohn et al. 2002). There too is a diversity of birds' that occurs near the area which ranges in high numbers of species due to the dominance of mopani trees in the surrounding, the mopane worm (*Gonimbrasia belina*), is likely to be seasonally common in this habitat, which is a food source for people. Another important food producing invertebrates in this habitat are the mopane bees (*Meniponula* sp), which may be existing in extensive quantities.

The area is well-thought-out to be a high reptile variety area and approximately more than 15 species may hypothetically occur, the African rock python (*Pythonnataensis*) and the leopard tortoise (*Geochelone pardalis*). Mammals in this area ranges in numerous numbers of species and indigenoussness ranging from 9-10 species. Those that could possibly occur in the area comprise of types considered almost vulnerable like the Commersons Leafnosed Bat (*Hipposideros vittatus*), Angolan epauletted fruit bat (*Epomophorous angolensis*).

In Namibia there are a wide-spread of, Hartmanns mountain zebra (*Equus zebra hartmannnae*), black-faced impala (*Aepyceros melampus petersi*), giraffe (*Giraffa Camelopardalis*), black mongoose (*Herpestes flavescens*), bushveld sengi (*Elephant intufi*), mountain ground squirrel (*Xerus princeps*), endangered black rhinos (*Diceros bicornis*) may also possibly occur in this area, cape fox (*Vulpes chama*), bat-eared fox (*Octocyon megalitis*), African elephant (*Laxodonto africana*), southern African wildcat (*Felis silvestris*) cheetah (*Acinonyx jubatus*) and savanna pangolin (*Smutsia temminckii*) (Strohbach, 2001). There is also a group of near- thread animals likely to be seen such as the fruit bat (*Epomophorous angolensis*), brown hyaena (*Parahyaena brunne*), and white rhinoceros (Griffin, 2003).

Table 5 - General Fauna Data, (Mendelssohn, 2002)

Mammal Diversity	61 – 75 Species
Bird Diversity	51 – 80 Species
Reptile Diversity	41 – 50 Species
Frog Diversity	4 – 7 Species

7 SOCIO CULTURAL ENVIRONMENT

Ashby (2019) quotes the Kunene Regional Council's Development Profile of 2015 in stating that it supports mining of mineral resources as it will contribute to economic growth of the region. More specifically, it suggests that investors within the mining sector are encouraged to engage in Public Private Partnerships (PPPs) with local communities, thereby addressing the inequitable distribution of mineral resources in the region.

7.1 DEMOGRAPHY

According to the Namibian Statistics Agency reporting of 2013 and 2014 between 2001 and 2011, the regional population grew at an annual rate of 2.3% which is faster than the national average of 1.4%. The population lived in 18,500 households, with an average household size of 4.6 persons. The Epupa Constituency had a population of over 17,000 inhabitants while the Opuwo rural constituency was 7,657 in 2011 (NSA, 2011). The devastating drought years since 2013 have caused many farmers to lose their livelihoods and have increased migration to Opuwo to be in easier reach of drought-relief food from the government (Ashby, 2019). This has put considerable strain on the Opuwo Town Council to provide basic services such as water, ablution and refuse removal in the informal settlements which have expanded rapidly. According to NSA (2011), the most commonly spoken languages at home in Kunene region are Otjiherero (42% of households) and Nama/Damara (36%).

7.2 REGIONAL ECONOMICS

According to the National Planning Commission 2015 reporting (Ashby 2019) the Kunene Region has the second highest proportion of people classified as materially deprived (63.4% compared to the national average of 48%), reflecting the relatively high proportion of semi-nomadic pastoralist Himba people in the region with few material possessions.

Main sources of income in households are farming 32%, wages and salaries 41%, cash remittance 5%, business (non-farming) 8% and pension. Many households in this region also highly rely on drought relief assistance 15%. A few communities also rely on incomes from conservancies they formed, through good wildlife management that attracts tourists and other activities such as trophy hunting (NSA, 2011).

According to the 2014 national statistics data summarised by Ashby (2019) 84% of people in the Kunene Region live in inadequate housing conditions which lack basic services to the home, compared to the national average of 76%. In the Epupa Constituency, only 29% of households had access to safe water and 92% of households had no toilet facility. Only 8% of households used electricity for lighting and 92% had no decent lighting (critical for improving school performance). Approximately 78% of households in this area relied on wood or charcoal for cooking.

7.3 EDUCATION

According to the 2015 Planning Commission (Ashby 2019), the region has the highest levels of education deprivation of all the regions (81.6% compared to the national average of 63%), measured by educational attainment reached by people aged 15 to 59 inclusive. Literacy rate is 65% for those who are 15 years and older, literacy rate is low in rural Opuwo due to a high number of indigenous residents who are not exposed to any education. However, in the urban part of the town, literacy rate increases to 75% (females 72,5%, males 76,4%).

7.4 LAND USE

Agriculture is the most important employment sector in the region but as the region is very arid, farming was the main source of income for only 31% of households in 2011 (Ashby 2019). In theory communal grazing of livestock benefits from rangeland management practises which protect and enhance the grazing resource. This fits very well with Namibia's Community Based Resource Management programme of conservancies which has enabled communities to manage the natural resources in their areas and use them for community benefits and improvement of individual livelihoods. The high number of conservancies and community forests in northern Kunene is largely a reflection of the remoteness of many areas and the divisions within communities, often along ethnic lines. The EPL falls within the Orupembe, Sanitatas, Okondjombo, Etanga and Otjitanda communal conservancies.

According to the National Planning Commission, the Epupa and Opuwo rural Constituencies are famous for their Ovahimba pastoralists, and 83% of households in the constituencies are involved in livestock farming and many settlements have grown up around natural springs and 65% of the constituency's household's practised crop farming as documented during the 2011 census (Ashby 2019). According to national statistics reporting of 2014 (Ashby 2019) the reliance on agriculture as the main source of income to 78% of households in the constituency highlights their vulnerability to drought.

Tourism is a key economic sector for this region, as it has ancient traditional diversity and practices, the region lacks extensive modernization, wildlife and also its phenomenal landscape, these are all aspects that plays a major role in tourism. Major attractions in this region include Ovahimba and Ovaherero settlements, Epupa Falls, the ancient rock engravings (White lady) of Twyfelfontein, the World heritage site of the Petrified Forest (Moilanen, 2015).

7.5 ARCHITECTURAL / CULTURAL HERITAGE

Although the people themselves represent a rich and important heritage in terms of the lifestyle, traditions and ongoing cultural practices a review of the National Heritage Council database was conducted, and within the EPL boundaries there are no known heritage sites. In cases where heritage sites are discovered the chance find procedure as described in the EMP will be used. If any historical or heritage sites(s) of importance on or around the project area are encountered during exploration activities these will be reported to the Monument's Council in Windhoek, and the site will be left untouched.

8 IMPACT ASSESSMENT

The impact assessment of a number of aspects was carried out using the Hacking Method.

Both the criteria to be used to assess the impacts and the method of determining the significance of the impacts is outlined in Table 6 below. This method complies with the method provided in the Namibian EIA Policy document and EIA regulations. Part A provides the approach for determining impact consequence (combining severity, spatial scale and duration) and impact significance (the overall rating of the impact). Impact consequence and significance are determined from Part B and C. The interpretation of the impact significance is given in Part D. Both mitigated and unmitigated scenarios are considered for each impact.

The purpose of this section is to assess and identify the most relevant environmental impacts by describing certain quantifiable aspects of these and to provide possible mitigation measures to minimise the magnitude of the impacts that would be expected from the exploration activities.

The impact on the biophysical environment is considered to be of low significance. The following potential impacts on the environment for prospecting activities were identified and assessed:

- Air quality
- Noise
- Health & safety
- Visual
- Land use
- Waste
- Ecological, Biodiversity & Habitat alteration
- Water Resources
- Socio-economic
- Decommissioning

These identified potential impacts were evaluated. Mitigation measures are proposed for each aspect. The assessment methodology for evaluating the potential impacts is defined in **Table 6**.

Table 7 to

Table 15 describe and assess the above-mentioned potential impacts

Table 6 - Criteria for assessing impacts

PART A: DEFINITION AND CRITERIA		
Definition of SIGNIFICANCE	Significance = consequence x probability	
Definition of CONSEQUENCE	Consequence is a function of severity, spatial extent and duration	
Criteria for ranking of the SEVERITY/NATURE of environmental impacts	H	Substantial deterioration (death, illness or injury). Recommended level will often be violated. Vigorous community action. Irreplaceable loss of resources.
	M	Moderate/ measurable deterioration (discomfort). Recommended level will occasionally be violated. Widespread complaints. Noticeable loss of resources.
	L	Minor deterioration (nuisance or minor deterioration). Change not measurable/ will remain in the current range. Recommended level will never be violated. Sporadic complaints. Limited loss of resources.
	L+	Minor improvement. Change not measurable/ will remain in the current range. Recommended level will never be violated. Sporadic complaints.
	M+	Moderate improvement. Will be within or better than the recommended level. No observed reaction.
	H+	Substantial improvement. Will be within or better than the recommended level. Favourable publicity.
Criteria for ranking the DURATION of impacts	L	Quickly reversible. Less than the project life. Short term
	M	Reversible over time. Life of the project. Medium term
	H	Permanent. Beyond closure. Long term.
Criteria for ranking the SPATIAL SCALE of impacts	L	Localised - Within the site boundary.
	M	Fairly widespread – Beyond the site boundary. Local
	H	Widespread – Far beyond site boundary. Regional/ national

PART B: DETERMINING CONSEQUENCE

SEVERITY = L					
DURATION	Long term	H	Medium	Medium	Medium
	Medium term	M	Low	Low	Medium
	Short term	L	Low	Low	Medium
SEVERITY = M					
DURATION	Long term	H	Medium	High	High
	Medium term	M	Medium	Medium	High
	Short term	L	Low	Medium	Medium
SEVERITY = H					
DURATION	Long term	H	High	High	High
	Medium term	M	Medium	Medium	High
	Short term	L	Medium	Medium	High
			L	M	H
			Localised Within site boundary Site	Fairly widespread Beyond site boundary Local	Widespread Far beyond site boundary Regional/ national
SPATIAL SCALE					

PART C: DETERMINING SIGNIFICANCE					
PROBABILITY (Of exposure to impacts)	Definite/ Continuous	H	Medium	Medium	High
	Possible/ frequent	M	Medium	Medium	High
	Unlikely/ seldom	L	Low	Low	Medium
			L	M	H
CONSEQUENCE					

PART D: INTERPRETATION OF SIGNIFICANCE	
Significance	Decision guideline
High	It would influence the decision regardless of any possible mitigation.
Medium	It should have an influence on the decision unless it is mitigated.
Low	It will not have an influence on the decision.

*H = high, M= medium and L= low and + denotes a positive impact.

Table 7 - Air Quality Impacts

Risk Event		Disturbances to soil and rock resulting in excessive dust in the atmosphere				
Description		<p>Dusty atmospheric conditions do prevail around Opuwo during the winter months when dry north easterly winds blow. Prospecting activities may generate dust due to the nature of the substrate:</p> <ul style="list-style-type: none"> ➤ Movement of vehicles along road network are likely to lift dust into the air. ➤ Percussion drilling will most definitely cause dusty conditions. <p>The surrounding habitats receive the dust that emanates from the exploration activities which may potentially be affected. Fauna and flora alike could be impacted as ecosystem functioning is possibly affected.</p> <p>Negative effects of dust on personnel working at the drilling site are likely to occur if dust suppression techniques are not employed and personal protection equipment is not used to safeguard the health of personnel.</p>				
Status		Negative				
Phases		Phases during which sources of dust apply are highlighted below; Significance assessment was carried out on the Prospecting Phase which presents a long-term risk.				
Initiation Phase		Prospecting Phase	Decommissioning Phase		Post Closure	
Road network establishment		Road use and maintenance	Demolishing structures		Background levels will most likely become prevalent soon after closure.	
Erection temporary structures		Drilling	Rehabilitation of slopes			
		sample haulage from drill rigs to the storage area				
Severity		Minor deterioration (nuisance or minor deterioration). Change not measurable/ will remain in the current range. Recommended level will never be violated. Sporadic complaints. Limited loss of resources.				
Duration		Reversible over time. Life of the project. Medium term				
Spatial Scale		Fairly widespread – Beyond the site boundary. Localised at best. Though this does depend on mobility of particles and prevailing weather conditions.				
Probability		Definite and continuous				
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Unmitigated	L	L	L	L	H	L
Significance Consequence of		The generation of dust will not have an influence on the decision to carry out the activity or not. Natural weather conditions can create very dusty atmospheric conditions. Prospecting activities will contribute minimal dust into the atmosphere.				
Prevention		Dust creation cannot be prevented completely. Water is normally used to suppress dust on the roads. However, this scarce resource cannot be applied continuously and indiscriminately.				
Mitigation Action		<p>Dust suppression techniques will be necessary when dust becomes an issue during the dry winter months. The following can be done to reduce exposure of the environment and personnel to continuous and excessive dust plumes:</p> <ul style="list-style-type: none"> ➤ Avoid dust generating activities that create excessive dust during windy conditions. ➤ Personnel are required to wear personal protection equipment if excessive dust should be created. ➤ All vehicles transporting crushed material off site should be covered with a tarpaulin when travelling on the highways. ➤ Water spays at the various plant components with effectively keep dust from blowing into the atmosphere. ➤ The road network within the site can be sprayed with water and other dust suppressants during dry dusty conditions. ➤ To mitigate gaseous pollutants released from the combustion of hydrocarbons, use of high quality fuels will ensure quantities released per unit weight of product are at levels within environmental limits. 				

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Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Mitigated	L	L	M	L	L	L
Significance Consequence	of	The dust suppression techniques if applied diligently and consistently will result in a low significance impact for both the biophysical and social environment				
Confidence Level	High, provided management implements the mitigation action and the company provides the necessary financial support to implement the changes required					

Table 8 - Noise Impacts

Risk Event	Disturbance of sense of place and the effect on tranquil ambient noise levels					
Description	<p>Potential noise sources during the exploration activities could originate from vehicles, earthmoving equipment, generators and drilling operation. The irritation issue of these noise sources will depend on the closeness of the activities to various receptors.</p> <p>Most homestead and kraals in the surrounding area are abandoned as the community moved to other places in search of better resources for themselves and their animals for survival.</p> <p>For rural districts the daytime ambient noise level requirement outlined in SANS 10103 (2008) between 6am and 10pm is 45dBA (A-weighted decibel). This is in line with the guidelines published by the World Health Organisation (WHO). The noise levels should not exceed the ambient noise levels for rural settings.</p>					
Status	Negative					
Phases	Phases during which sources of noise will apply are highlighted below; Significance assessment was carried out on the Prospecting Phase which presents a long-term risk.					
Initiation Phase	Prospecting Phase	Decommissioning Phase	Post Closure			
Vehicles on road network	Vehicles on road network	Demolishing structures	Background or baseline levels will most likely become prevalent again immediately after closure.			
Erection of temporary structures	Drilling operations	Rehabilitation of slopes				
	Samples haulage from drill rig to storage area					
Severity	Minor deterioration (nuisance or minor deterioration). Change not measurable/ will remain in the current range. Recommended level will never be violated. Sporadic complaints. Limited loss of resources.					
Duration	Reversible over time. Life of the project. Medium term					
Spatial Scale	Fairly widespread – beyond the site boundary. Localised at best. Though this does depend on mobility of particles and prevailing weather conditions.					
Probability	Definite and continuous					
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Unmitigated	M	M	M	M	H	M
Significance Consequence	of	Mitigations to reduce noise levels measured at receptors will be necessary.				
Prevention	Noise creation cannot be prevented and will occur and should be mitigated.					
Mitigation Action	<p>There are industrial standards to which the noise sources (i.e., machinery) must comply. Regular maintenance of machinery should maintain the acceptable noise levels for operators working with the machines. It is not clear whether this will produce the accepted rural standard at the homesteads.</p> <p>It is recommended that any complaints regarding noise be recorded and included in the environmental reports. Should complaints persist then a survey by a suitably qualified and independent hygienist will be required.</p>					

<p>Shields which deflect the noise away from receptors may reduce the decibels to within the rural standards. The placement of the camp and storage areas will also play a role to ensure sources of noise are not directly in line with the homesteads.</p> <p>Transportation routes should be planned for trucks such that they pass as far away as possible from noise sensitive receivers, a restriction of the hours of movement, e.g., not allowing the transport of material during the noise sensitive hours of the night can mitigate noise impacts.</p> <p>For rural districts, the daytime ambient noise level requirement outlined in SANS 10103 (2008) between 6am and 10pm is 45dBA. This is in line with the guidelines published by the World Health Organization (WHO).</p> <p>The nuisance factor of these noise sources will depend on the proximity of the exploration activities to the national road, homesteads and sensitive animal habitats.</p>						
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Mitigated	M	M	M	M	M	M
Significance of Consequence		The normal maintenance may reduce the probability of noise marginally. Should the shielding of noise sources keep the noise measured at the receptors to within the limits then the significance could drop to low.				
Confidence Level		The EAP is fairly confident that the mitigations will result in the impact significance. A good monitoring system will enable the proponent to document the facts and respond accordingly by enhancing any noise reduction strategies.				

Table 9 - Health & Safety Impacts – Noise and Vibration Effects on Personnel

Risk Event	The effects of excessive noise and vibration on the health and safety of personnel.		
Description	<p>Noise:</p> <ul style="list-style-type: none"> ➤ Long term exposure to high levels of noise can cause permanent hearing loss. Neither surgery nor a hearing aid can help correct this type of hearing loss. ➤ Short term exposure to loud noise can also cause a temporary change in hearing (your ears may feel stuffed-up) or ringing in your ears (tinnitus). These short-term problems may go away within a few minutes or hours after leaving the noisy area. <p>Vibration:</p> <p>Different vibration types are defined as:</p> <ul style="list-style-type: none"> ➤ Hand-Arm Vibration is defined as mechanical vibration that, when transmitted to the human hand-arm system, entails risks to the health and safety of workers, in particular vascular, bone or joint, neurological or muscular disorders. ➤ Whole-Body Vibration is defined as the mechanical vibration that, when transmitted to the whole body, entails risks to the health and safety of workers, in particular, lower back morbidity and trauma to the spine. 		
Status	Negative		
Phases	Phases during which sources of noise and vibration will apply are highlighted below; Significance assessment was carried out on the Prospecting Phase which presents a long-term risk.		
Initiation Phase	Prospecting Phase	Decommissioning Phase	Post Closure
Vehicles on road network	Vehicles on road network	Demolishing structures	Background or baseline levels will most likely become prevalent again immediately after closure. Personnel no longer on site.
Erection of temporary structures	Drilling operations Samples haulage from drill rigs to storage areas	Rehabilitation	
Severity	Substantial deterioration (permanent damage to spine from vibration or hearing). Recommended level will often not be violated.		

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Duration		Permanent. Beyond closure. Long term.				
Spatial Scale		Localised - Within the site boundary.				
Probability		Definite and continuous				
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Unmitigated	H	H	L	H	M	H
Significance Consequence of		Mitigations to reduce noise levels and exposure to vibrations for personnel are imperative.				
Prevention		<p>Engineering controls that reduce sound exposure levels are available and technologically feasible for most noise sources. Engineering controls involve modifying or replacing equipment or making related physical changes at the noise source or along the transmission path to reduce the noise level at the worker's ear. The same goes for vibration. The following should be considered:</p> <ul style="list-style-type: none"> ➤ Choose low-noise tools and machinery. ➤ Maintain and lubricate machinery and equipment (e.g. oil bearings). ➤ Enclose or isolate the noise source. 				
Mitigation Action		<p>Noise:</p> <p>The Occupational Safety and Health Administration (OSHA) guidelines set legal limits on noise exposure in the workplace. These limits are based on a worker's time weighted average over an 8-hour day. With noise, OSHA's permissible exposure limit (PEL) is 90dBA for all workers for an 8 hour day. The OSHA standard uses a 5dBA exchange rate. This means that when the noise level is increased by 5dBA, the amount of time a person can be exposed to a certain noise level to receive the same dose is cut in half.</p> <p>The WHO guideline on maximum noise levels to prevent hearing impairment set noise level limits at an average of 70 dBA over a 24 hour period with maximum noise levels not exceeding 110 dBA during the period. These latter limits would apply if the day time shift is prolonged beyond the 8 hour day.</p> <p>Mitigation actions include:</p> <ul style="list-style-type: none"> ➤ Operating noisy machines during shifts when fewer people are exposed. ➤ Limiting the amount of time, a person spends at a noise source. ➤ Providing quiet areas where workers can gain relief from noise sources. ➤ Where possible, restricting worker presence to a suitable distance away from noisy equipment. (Controlling noise exposure through distance is often an effective, yet simple and inexpensive administrative control.) ➤ In open space, for every doubling of the distance between the source of noise and the worker, the noise is decreased by 6dBA. ➤ Hearing protection devices, specifically earmuffs for long periods of exposure in close proximity to sources and use plugs for all places of elevated noise levels for extended periods ➤ PPE is considered an acceptable mitigation, but a less desirable option to control exposures to noise. <p>Vibration:</p> <p>Industry vibration regulations, set daily exposure limit values and action values for both hand-arm and whole-body vibration for eight hour shifts. Personnel can work shorter shifts where conditions causing excessive vibration to exist.</p>				
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Mitigated	M	M	L	M	L	L
Significance Consequence of		If all the mitigations listed are used, then the significance of the impact will be maintained at low.				

Confidence Level	The EAP is fairly confident that the mitigations will result in low significance. A good monitoring system will enable the proponent to document the facts and respond accordingly by enhancing any noise and vibration reduction strategies. Continuous training of personnel is imperative
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Table 10 - Health & Safety Impacts – General Hazards and Potential Risk of Injury

Risk Event	Injury risks due to normal working conditions					
Description	<p>The potential impacts on human health and safety resulting from activities in any phase could include occupational accidents and injuries, vehicle accidents, exposure to weather extremes, trips and fall on uneven terrain, adverse health effects from dust generation and emissions, and contact with hazardous materials. The potential for these impacts to occur would be low because of the limited range of activities and number of workers required during operations. The proponent follows a set of industry-specific safety and health policies in the workplace.</p> <p>Typical operational procedures that pose risks to operational personnel are:</p> <ul style="list-style-type: none"> ➤ Operating heavy machinery, vehicles, excavators and drill rig ➤ Snake bites, or scorpion stings, etc 					
Status	Negative					
Phases	Phases and specific activities or equipment during which personnel are exposed to health and safety risks will apply are highlighted below; Significance assessment was carried out on the Prospecting Phase which presents a long-term exposure risk.					
Initiation Phase	Prospecting Phase	Decommissioning Phase		Post Closure		
Large mobile equipment	Large mobile equipment and vehicle movement	Demolishing structures				
Working at heights	Drilling Operations Fire and explosion hazards	Constructing fences				
Severity	Substantial deterioration. Recommended level will often be violated. Personnel potentially unable to work any longer.					
Duration	Permanent. Beyond closure. Long term.					
Spatial Scale	Localised - Within the site boundary.					
Probability	Definite and continuous					
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Unmitigated	H	H	L	H	H	H
Significance Consequence	of	Mitigations to reduce exposure to health and safety risks for personnel are imperative.				
Prevention	<p>The removal of hazards or risks will possibly prevent accidents from occurring. However, it is not possible to remove all risks.</p> <p>Snake awareness training and snake bite treatment procedures training</p>					
Mitigation Action	<p>It is not possible to prevent all incidents from occurring completely. An accident is an unplanned incident though it could have been foreseen if the necessary precautions had been taken. Not all hazards can be removed but the risk it presents can be lowered. An integrated health and safety management system acts as a monitoring tool and mitigating tool to reduce the risks. Typical mitigating measures within the health and safety management systems are:-</p> <ul style="list-style-type: none"> ➤ Draw up operational procedure manuals. ➤ Provide health and safety awareness training. ➤ Establish practical standard housekeeping rules. ➤ Where applicable, colour code certain areas, equipment and substances to thereby classifying the risks. 					

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<ul style="list-style-type: none"> ➤ Provide signage for personal protective equipment (e.g., protective clothing like safety boots and hard hats) ➤ Institute safe working procedures and require permits to work. ➤ Devise and implement emergency response plans. ➤ Close coordination with the traffic authorities to ensure road safety signs are strategically placed and ensure all employee drivers are well trained. ➤ Provide easy access to Material Safety Data Sheets (MSDS) ➤ Provide first aid treatment and training. ➤ Undertake daily safety reminders and/or drills. ➤ Establish regulations for handling fuel. <p>The MSDS gives health related medical responses for personnel assisting staff who are exposed to the fuels.</p> <p>Procedures for dealing with injuries or accidents must be in place and all contact details for emergency personnel must be available.</p> <p>This list is not comprehensive and could be supplemented substantially by the Health & Safety Manager</p>						
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Mitigated	L	L	L	L	L	L
Significance Consequence	of	If all the mitigations listed are implemented, then the significance will be maintained at low.				
Confidence Level	The EAP is quite confident that the mitigations will result in low significance. Continuous training of personnel is imperative.					

Table 11 - Visual Impacts

Risk Event	Changes to the aesthetic appeal of the area due to presence of people, vehicles and machinery. Visible changes to habitats due to human activities.		
Description	<p>The experience of enjoying the landscape free of human activities is considered highly desirable. Intrusions into the current scenery may be unwelcomed.</p> <p>Impact to visual resources would be considered unfavourable if the landscape were significantly degraded or modified. The presence of exploration personnel, vehicles and other equipment may reduce the aesthetic appeal of the area.</p>		
Status	Negative		
Phases	Phases during which traffic, infrastructure and dust plumes which potentially play a role in visual nuisances are highlighted below;		
Initiation Phase	Prospecting Phase	Decommissioning Phase	Post Closure
Additional traffic on the road and access roads	Samples haulage and possible blasting creating dust plumes		Cleared land to support exploration activities
Dust plumes caused by mobile equipment operating e.g. the drill rigs.			
Severity	Minor deterioration (nuisance or minor deterioration). Change not measurable/ will remain in the current range. Recommended level will never be violated. Sporadic complaints. Limited loss of resources.		
Duration	Reversible over time. Life of the project. Medium term (Except for the trenches (not foreseen) which could remain visible for the long term.		

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Spatial Scale		Fairly widespread – Beyond the site boundary. Localised at best. Though this does depend on mobility of particles and prevailing weather conditions. The setting is rural, and the only receptor currently is the nearby homestead.				
Probability		Possible				
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Unmitigated	L	M	L	L	L	M
Significance Consequence	of	<p>The two aspects for visual impact are under consideration:</p> <p>1. Unless it is mitigated the generation of dust should have an influence on the decision to carry out the activity or not. However, natural weather conditions can also create very dusty atmospheric conditions. The exploration activities on site will contribute slightly to local atmospheric dust levels and will potentially affect the visual experience of the people staying nearby. Those communities staying along the transport route are affected by other road users too, so this aspect is a cumulative impact. This aspect is considered a minor aspect and temporary in nature.</p> <p>2. The aesthetic changes to the landscape can be mitigated for all phases of project. Alternatives have been considered which will reduce the visual impact of the project on anyone who pass through the area.</p>				
Prevention	<p>Dust creation cannot be prevented completely. Water is normally used to suppress dust on the roads.</p> <p>For operations to continue, personnel, vehicles and machinery will continue to operate within the area of the larger EPL for the duration of the project. Although minimal in most parts of the licence, it is not possible to operate and have no visual presence at all.</p>					
Mitigation Action	<p>Best practice methodologies for operations will be employed. These may include the following:</p> <ul style="list-style-type: none"> ➤ Existing roads and tracks are used to access the site. ➤ Careful planning to disturb significant floral and faunal habitats when accessing the site. ➤ Dust suppression using water will most likely not be practical due to the non-sustainability of ground water usage. ➤ Training personnel regarding the visible signs of faunal and floral biodiversity and the avoidance of habitat disturbance. ➤ Minimise the footprint of personnel, vehicles and machinery around the project area. ➤ Rehabilitate habitats through the removal of obvious signs of human presence. ➤ Removal of waste on a regular basis and disposal of waste in the appropriate manner. ➤ Removal of machinery from the sites if periods of inactivity are prolonged. ➤ If lighting is required at night, lights need to be strictly controlled and fixtures should be low-glare lighting with downward facing directed beams. ➤ Constructed structures should have natural desert colours (medium-grey brown) so they can blend in the surrounding environment. <p>Often, the sites that are disturbed and rehabilitated at least from an aesthetic perspective will in time be recolonized by both plants and animals. The aim is to minimise the footprint so as to achieve the least impact due to anthropogenic influence.</p>					
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Mitigated	L	L	L	L	L	L
Significance Consequence	of	The dust suppression techniques if applied diligently and consistently will result in a low significance visual impact for the residents of the neighbouring farm homestead				
Confidence Level	High, provided management implements the mitigation action and the company provides the necessary financial support to implement the changes required. A commitment to revegetating is required.					

Table 12 - Land Use Impact

Risk Event	Users and owners of the land could potentially experience restrictions to their constitutionally entitled liberties.					
Description	The EPL is situated on land belonging to the government of Namibia granted to rural people in the form of communal land. The EPL lies within portions Orupembe, Sanitatas, Okondjombo, Etanga and Otjitanda communal conservancies. The area falls within the Epupa and Opuwo Rural Constituencies but may be under the stewardship of Kakurukouje Traditional Authority. The communities of neighboring villages lay claim to the grazing rights of the area.					
Status	Negative					
Phases	Phases during which potential conflicts may apply are highlighted below; Significance assessment was carried out on the Prospecting Phase which presents a long-term risk. Aspects where potential conflicts may arise are listed.					
Initiation Phase	Prospecting Phase	Decommissioning Phase	Post Closure			
Access to site	Access to site	Access to site	Access to site			
Visual impact	Visual impact	Visual impact	Visual impact			
Access to groundwater resources / boreholes	Access to groundwater resources / boreholes	Access to groundwater resources / boreholes	Public safety			
Public safety	Public safety	Public safety				
Asset security	Asset security	Asset security				
Waste management	Waste management	Waste management				
Severity	Moderate / measurable deterioration (discomfort). Recommended level will occasionally be violated. Widespread complaints. Noticeable loss of resources.					
Duration	Reversible over time. Life of the project. Medium term					
Spatial Scale	Fairly widespread – Beyond the site boundary. Localised at best.					
Probability	Define / continuous					
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Unmitigated	M	M	M	M	H	M
Significance Consequence	of	Mitigations to ensure no conflicts with landowners occur, will be necessary.				
Prevention	It is not possible to prevent all conflicts. Any unforeseen issues will be mitigated through the various mechanisms stipulated in the EMP					
Mitigation Action	<p>The EMA requires that permission be provided by the competent authorities for the listed activity. The EIA process has facilitated a transparent process by which concerns can be raised. The proponent is subservient to the conditions laid down by the guidelines / conditions and the law that upholds it. The implementation of the exploration programme will be in accordance with the approved Environmental Management Plan (EMP). The draft EMP can be found in Appendix F.</p> <p>The following mechanisms should be included in the environmental management system:</p> <ul style="list-style-type: none"> ➤ Correspondence and agreements - document filing system. ➤ Review memoranda of understanding annually ➤ Keep complaints register up to date. ➤ Update stakeholders register regularly. ➤ Actively engage landowners regularly to maintain open channels of communication. 					
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Mitigated	L	L	M	L	L	L
Significance Consequence	of	Maintaining good relationships with landowners is imperative so that the severity and duration of disputes can be kept low. This will ensure the probability is low.				

Confidence Level	The EAP is confident that a well-designed and well implemented stakeholder engagement programme will cover the land use conflicts that could potentially arise.
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Table 13 - Waste Impact

Risk Event		Waste Production				
Description		Waste is generated during the periods of field activities i.e., construction, operational and decommissioning phases of the project’s life. Waste can be classified into mineralised and non-mineralised waste. Non-mineralised waste can be classified as non-hazardous and hazardous waste. Medical waste is additional category. <ol style="list-style-type: none"> 1. Non-Hazardous non-Mineralised includes metal cut offs, rubber, wood, product packaging, organic materials, glass, plastics, food scraps, cardboard/paper, used PPE, etc. 2. Hazardous non-mineralised: Printer cartridges, sewerage, batteries, hydrocarbons (oils, grease), fluorescent, etc. 3. Medical waste: Syringes, material with blood stains, bandages, etc. 				
Status		Negative				
Phases		Phases during which waste will be produced are highlighted below; Significance assessment was carried out on the Prospecting Phase which presents a long-term risk. Receptors potentially affected by waste.				
Initiation Phase		Prospecting phase	Decommissioning Phase	Post Closure		
Company personnel health		Company personnel health	Company personnel health	General public health		
General public health		General public health	General public health	Groundwater		
Groundwater		Groundwater	Groundwater	Biodiversity		
Biodiversity		Biodiversity	Biodiversity	Soil		
Soil		Soil	Soil	Atmosphere - dust and other volatiles emitted from waste are covered under air quality impacts but there is some overlap with waste management risks		
Atmosphere		Atmosphere	Atmosphere			
Severity		Moderate / measurable deterioration (discomfort). Recommended level will occasionally be violated. Widespread complaints. Noticeable loss of resources.				
Duration		Reversible over time. Life of the project. Medium term				
Spatial Scale		Fairly widespread – Beyond the site boundary. Localised at best.				
Probability		Definite / continuous				
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Unmitigated	M	M	M	M	H	M
Significance Consequence of		The project activities will generate waste. Preventative and Mitigating mechanisms are imperative				
Prevention		Some waste products can potentially impact the listed receptors can be managed to prevent impacts. Actions and company commitments that can prevent the impacts include the following: <ul style="list-style-type: none"> ➤ A waste management procedure should cover recycling, re-use, storage, handling, transportation and disposal. ➤ Collection and disposal of waste must be effective enough to not impact any of the receptors. ➤ If waste must be stored and separated on site then the activities must take place on sealed surfaces, within bunds and fenced areas, and made ready for transport off-site by packaging the waste in sealed containers 				

<p>Mitigation Action</p>	<p>Where waste product impacts on the receptors cannot be prevented the preventative measures above should still be employed to mitigate or reduce the impacts. Mitigations for the various receptors include the following:</p> <ul style="list-style-type: none"> ➤ Personal protection equipment (PPE) can protect personnel from exposure to disease or toxic chemicals. ➤ Awareness training for company personnel and the general public will inform them of those wastes that may cause harm, pollute the soil, groundwater or air (if particulate) ➤ Some wastes are dangerous to fauna and flora; Animals should not be able to access the waste management area; waste must be contained so that it cannot enter the naturally vegetated areas beyond the accessory works area. ➤ Containerisation of highly volatile wastes should be actioned to reduce emissions but not so effectively that creates explosive risks if pressures build up. The latter may occur if the containers are stored outside in the heat of the sun. <p>A waste management programme should keep records in the form of an inventory of waste products collected, sorted, stored, recycled, reused or disposed. Certificates for disposal of hazardous waste should be filed.</p> <p>Sewerage created at the camp or management offices either needs to be deposited directly into approved and permitted French drains or removed offsite. If the latter is to be done, then sealed sewerage tanks are required. The regulations under the Water Resource Management Act need to be consulted with regards to the erection of French drains near water courses. They cannot to be constructed within 100m of the banks of a water course.</p> <p>Storage of hazardous liquid waste must by law follow industry standards. These standards will be communicated in fuller details by the fuel supplier. Ideally, 110% bunded containers should be brought to site and placed upon sealed surfaces with waste collection sumps.</p> <p>Regular removal of oil to recyclers is advised. All hazardous liquid waste should be stored on sealed surfaces</p>					
<p>Rehabilitation</p>	<p>In the mitigation hierarchy, rehabilitation may be required if the mitigations are not implemented properly and there is compromised in proper procedure, or an accident occurs during the process of collection, storage or disposal of waste. As a result, one of the receptors may be impacted. Consequently, the following examples of rehabilitation may be required:</p> <ul style="list-style-type: none"> ➤ A person who is exposed to disease or toxic waste, which results in harm, will need medical attention. ➤ Soil which is contaminated by used hydrocarbons needs to be relocated to a remediation cell where the addition of fertiliser, air and water will within a year be suitable for re-use. 					
<p>Mitigation</p>	<p>Severity</p>	<p>Duration</p>	<p>Spatial Scale</p>	<p>Consequence</p>	<p>Probability of Occurrence</p>	<p>Significance</p>
<p>Mitigated</p>	<p>L</p>	<p>M</p>	<p>L</p>	<p>L</p>	<p>L</p>	<p>L</p>
<p>Significance of Consequence</p>	<p>If the mitigation hierarchy is followed through to rehabilitation, then the resultant consequence could be insignificant.</p>					
<p>Confidence Level</p>	<p>A well designed and well implemented waste management programme will provide the necessary confidence that the risks to receptors will be of low significance.</p>					

Table 14 - Ecological & Biodiversity Impacts

Risk Event	Prospecting activities may affect biodiversity of fauna and flora directly or through habitat alteration.
<p>Description</p>	<p>Through minerals exploration in general there is potential for impacting the diversity of species within the various habitats by reducing population numbers of certain species. Pressures on the population numbers can potentially lead to a reduction of a population within an area causing the species to no longer exist within that area. Should a species be endemic to that same area then the risk of extinction is high. Habitats can be severely altered potentially changing the type of habitat or leading to the removal of micro habitats.</p> <p>No specialist fauna and flora studies have been commissioned for the EPL. Fauna biodiversity, though dependent on these habitats in the EPL, is relatively more mobile and less likely to be impacted by the exploration activities.</p> <p>Fauna:</p> <p>A. Potential destruction of habitats and organisms could take place during construction and operations, construction and use of roads by vehicles and machinery, clearing of land, building of infrastructure, at accommodation, around human activities, around vehicle movements, and the operation of machinery. The potential impact could be as follows:</p> <ul style="list-style-type: none"> ➤ Death of animals that are struck by earthmoving equipment, vehicles and machinery. ➤ Death of animals due to poaching. ➤ Bird nests, nesting habitats and feeding habitats are destroyed, affecting the viability of bird populations. ➤ Parts of territory and home ranges are destroyed. ➤ Dust creates conditions for health decline in plants and animals. ➤ Noise disturbs animals and causes increase in stress. <p>B. Potential disturbance of animals and interference with their behaviour during operations, when infrastructure and roads form obstacles to the directional movement of animals, when an increase in human and vehicle presence and movement results from exploration activities, as a result of loud noises caused by the operations of heavy machinery. The potential impact could be as follows:</p> <ul style="list-style-type: none"> ➤ Larger mammals and birds are the taxa most likely to be affected. ➤ The loss of migration corridors causes stress and an increased risk of death to various taxa. ➤ Birds and eggs could be poached. ➤ Animals, particularly birds, are disturbed while going about their daily activities, such as feeding, roosting and breeding. ➤ Dust creates conditions for health decline in plants and animals, and an increase in stress for animals. ➤ Noise disturbs the normal behaviour of animals, specifically mammals. <p>C. Potential light pollution as result of light sources that are visible outdoors. This can impact in the following ways:</p> <ul style="list-style-type: none"> ➤ Invertebrates that are attracted to the light provide an unnatural food source for taxa such as bats, geckos, nightjars and frogs. These insectivores are attracted to the food and then face conditions where they are more likely to die from causes such as collisions and predation. ➤ Invertebrates could die every night from exhaustion or predation, potentially disrupting their population numbers and causing disturbances in ecological processes. <p>Flora:</p> <p>No species extinction is expected from the exploration activities. Ecological functioning can be disturbed as plant populations of species are reduced, affecting the availability of food, shelter and building material for faunal species. Reduction in the populations reduces the number of seed needed to sustain the long-term regeneration of the plant populations.</p> <p>A. Minerals exploration activities may affect the ecology of the flora directly through habitat alteration or destruction within the planned EPL and works area.</p> <p>B. Exploration activities may affect the diversity of flora</p>
<p>Status</p>	<p>Negative</p>

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Phases		Phases during which project activities may impact the ecology and biodiversity are highlighted below; The significance assessment was carried out on both the construction and Prospecting Phases which presents a long-term risk.				
Initiation Phase		Prospecting Phase		Decommissioning Phase		Post Closure
Flora		Flora		Flora		Flora
Fauna		Fauna		Fauna		Fauna
Habitat		Habitat		Habitat		Habitat
Severity		Moderate / measurable deterioration. Noticeable loss of resources.				
Duration		Reversible over time. Life of the project. Medium term				
Spatial Scale		Localised - Within the site boundary				
Probability		Possible/frequent				
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Unmitigated	M	M	L	M	M	M
Significance Consequence		of The activities will alter the habitats that previously existed. Soil and flora will be removed. Fauna will relocate and compete for resources in adjacent habitats. Dust and lighting will also impact ecosystem. Mitigating & rehabilitation mechanisms are imperative.				
Prevention		Not possible as at least many specimens of the most common taxa found in the district will be removed during construction activities.				
Mitigation Action		<p>Awareness training for personnel will focus on:</p> <ul style="list-style-type: none"> ➤ Training all personnel to limit the habitat alteration during the construction and Prospecting Phases of the project. ➤ Teach knowledge and understanding of the fauna and flora and their ecology. <p>The following basic rules should be adhered too:</p> <ul style="list-style-type: none"> ➤ No killing or capturing of animals. ➤ No littering ➤ No speeding ➤ Driving only on existing roads (national roads and roads created by the proponent inside the gravel EPL area. ➤ No collection of firewood; the Forestry Act makes it an offence to harm or damage any plant in or within 100m of a river-course; 				
Rehabilitation		<p>The following aspects should be considered when finalising the closure plan:</p> <ul style="list-style-type: none"> ➤ Funds for rehabilitation should be set aside from the start of the Prospecting Phase. ➤ Reasonable and acceptable ways of rehabilitation should be implemented on an ongoing basis as well as at the time of site closure. ➤ Where soils have been affected by spillages such hydrocarbons, these soils should be stockpiled and appropriately treated to regulate the contamination levels prior to being used for rehabilitation purposes. ➤ A plant nursery for running trials should be established at the start of the Prospecting Phase. 				
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Mitigated	L	M	L	L	L	L
Significance Consequence		of If the mitigation hierarchy is followed through to rehabilitation, then the resultant consequence could be insignificant.				
Confidence Level		A well designed and well implemented rehabilitation programme will provide the necessary confidence that the altered habitats could be rehabilitated at closure to a degree that the final footprint of the project will be acceptable.				

Table 15 - Water Resource Impacts

Risk Event		Exploration activities may affect water resources through over utilisation or contamination				
Description		<p>Water will be needed for drinking, and personnel ablutions and for diamond drilling operations. The proponent does not expect to use much water on site, hence It is suggested that amounts of water can be sourced from Opuwo or from one of the surrounding neighbours and then be trucked to the site, as there is no existing infrastructure on site for the water utility company, this is the preferred option. If for any reason more water is required then the proponent suggests abstraction of water from the river or ground water, which can be done at minimal extraction cost, a borehole can be sunk to augment supply volumes.</p> <p>The feasibility of each option must be weighed up. This depends largely on the supply capabilities of the source and the demand of the project.</p> <p>Water is a scarce resource and needs to be used sustainably. Groundwater reserves should not be depleted below an acceptable level if boreholes are used.</p> <p>The groundwater or infrequent surface water flow is at risk of contamination by sewerage, chemicals and hydrocarbons that are not contained properly.</p>				
Status		Negative				
Phases		Phases during which project activities may impact the water resources are highlighted below; The significance assessment was carried out on the Prospecting Phase which represents the longest term where risks are present.				
Initiation Phase		Prospecting Phase		Decommissioning Phase		Post Closure
Surface water (ephemeral rivers)		Surface water (ephemeral rivers)		Surface water (ephemeral rivers)		Receptors should no longer be at risk as abstractions should have ceased and all potential contamination sources would have been removed
Groundwater (via borehole abstraction or unconsolidated soils and rock fractures)		Groundwater (via borehole abstraction or unconsolidated soils and rock fractures)		Groundwater (via borehole abstraction or unconsolidated soils and rock fractures)		
Severity		Substantial deterioration (death, illness or injury). Recommended water levels level could often be violated. Irreplaceable loss of resources should the groundwater be contaminated.				
Duration		Permanent. Beyond closure. Long term.				
Spatial Scale		Fairly widespread – groundwater and surface water can potentially convey impacts beyond the boundary of the EPL.				
Probability		Definite / continuous				
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Unmitigated	H	M	M	H	L	H
Significance of Consequence		A high significance is expected if no mechanisms along the hierarchy of mitigation continuum are implemented.				
Prevention		Water abstraction from a borehole can be stopped immediately when the permit stipulated depth is reached. This will prevent overutilization of the resource. Pollutants entering the groundwater and surface water receptors can be prevented. This would mean that any pollutants brought to site must be handled in such a way that no accidental spillages onto the ground occurs. In practice, the probability of this being humanly possible is slim. By definition, accidents happen. There will be no discharge of wastewater from the activities. Therefore, there will be minimum pollution as far water quality is concerned.				
Mitigation Action		<p>With regards water abstraction from boreholes, a continuous monitoring programme is required so as to manage the water level fluctuations sustainably. Abstraction must be stopped if the sustainable use cannot be maintained.</p> <p>In case where long-term structures, like machine workshops or chemical storage areas have been established, To mitigate against the accidental spillage of pollutants it is necessary to construct sealed surfaces with drains (e.g., oil water separators in the case of hydrocarbons) and bunds. These serve for dispensing or distribution sites and storage sites respectively. Water should be recycled on site and no discharge of waste water should be planned.</p>				

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	Ablution facilities should have correctly sized design criteria, to ensure that effluent discharge meet the requirements set by the Department of Water Affairs.					
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Mitigated	M	M	L	M	L	L
Significance Consequence	of	If the mitigation hierarchy is followed through to rehabilitation, then the resultant consequence could be insignificant.				
Confidence Level	A well designed and well implemented mitigation programme alone should provide for a low significance. Rehabilitation will provide greater confidence that if polluted, the receptors could be rehabilitated before or at mine closure.					

Table 16 - Socio-Economic Impact

Risk Event	Positive aspect of sustaining employment in the sector.					
Description	<p>The project will employ about 30 personnel, to be employed contracted by the Proponent or Mineral Licence holder to work with the mineral exploration activities. In addition, a security team of 2 personnel may also be employed during time of drilling or other invasive exploration activities.</p> <p>The baseline survey showed that the immediate (radius of 3km) surrounding area is only sporadically resided upon. Herders use the area. The negative social impact is deemed negligible and the positive aspects of the project on the economic benefits outweigh any negative aspects.</p>					
Status	Positive					
Phases	Phases during which project activities may contribute to the local economy are highlighted below; The significance assessment was carried out on the Prospecting Phase which represents the longest term when benefits are greater.					
Initiation Phase	Prospecting Phase	Decommissioning Phase	Post Closure			
Construction personnel	Operational personnel	Demolition personnel	No employment			
Security personnel	Security personnel	Security personnel				
Support services	Support services	Support services				
Severity	Substantial improvement. Will be within or better than the recommended level. Favourable publicity.					
Duration	Reversible over time. Life of the project. Medium term					
Spatial Scale	Fairly widespread – Beyond the site boundary. Local					
Probability	Possible/ frequent					
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Unmitigated	M+	M+	M+	M+	M+	M+
Significance Consequence	of	A medium positive significance is expected.				
Prevention	<p>Economic benefits could be prevented locally if no local residents are employed, and all materials and equipment is imported from other towns in the region and beyond.</p> <p>Actions that will prevent the positive impact of employment creation for this project would be the no go alternative due to either a fatal flaw from a socio-economic or biodiversity impacts being of high significance.</p> <p>Retrenchment of permanently employed can be avoided by diversifying the business options in the construction industry.</p>					
Mitigation Action	At least 50% of the personnel should be hired from the local resident pool.					
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance

Mitigated	M+	M+	M+	M+	H+	M+
Significance Consequence	of	A medium positive significance is expected.				
Confidence Level		Provided local residents are hired then one can be more confident in achieving the medium significance. Through meaningful permanent employment economic development can be secured for all concerned.				

Table 17 - Decommissioning Impact

Risk Event	Abandonment of the site potentially exposes public and wildlife to hazards					
Description	When an exploration area is abandoned the infrastructure and altered landscape can affect the safe access of wildlife and public if not rehabilitated. The altered habitat may or may not promote the re-establishment of organisms once found there. Visual rehabilitation to the original state is not always practical due to economic factors.					
Status	Negative					
Phases	Phases during which decommissioning, and closure may impact public safety, future ecosystem functioning for domestic livestock and wildlife, economic stability and social health, and asset security. The significance assessment is carried out for the post closure phase.					
Initiation Phase	Prospecting Phase	Decommissioning Phase	Post Closure			
Not applicable	Not applicable	Ecosystem functioning	Ecosystem functioning			
		Public safety	Public safety			
		Economic uncertainty	Social challenges of unemployment			
		Asset security				
Severity	Substantial deterioration after mine closure with respect to aspects listed above.					
Duration	Permanent. Beyond closure. Long term.					
Spatial Scale	Fairly widespread – Beyond the site boundary. Local					
Probability	Definite / continuous					
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Unmitigated	H	H	M	H	H	H
Significance Consequence	of	<p>A high significance is expected if no mitigation mechanisms are implemented. This is a worst-case scenario where no alternative uses of the altered habitat is considered.</p> <p>In terms of economic benefits lost, it is important to note that the longer the exploration stays open the longer the benefit to the community which if the project did not start up would not have been realised in the first place.</p>				
Prevention	<p>The resources are finite and so decommissioning is inevitable at some point. The degree to which rehabilitation is required after exploration activities have ceased depends on various factors. If exploration was successful mining and resource exploitation can follow as the next stage in the overall mineral project. The impact of closure will have will depends on the mitigations that can be considered.</p> <p>Ecosystem functioning of the whole area can return to baseline conditions especially when the area revegetate to baseline conditions.</p> <p>Public harm can be prevented provided any hazardous area is secured and the risky hazards are inaccessible.</p> <p>Jobs within this sector will be lost. This cannot be prevented unless the employees move with the company to the next phase.</p> <p>Theft and damage to equipment can be prevented during the decommissioning phase provided good security prevents any form of criminal behaviour by disgruntled employees.</p>					

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Mitigation Action		<p>Visual impacts can be mitigated through a thorough removal of all infrastructure (if such was established).</p> <p>The reduction in the size of the footprint during operations and decommissioning increases the probability that more habitats will become fully functional when the project closes.</p> <p>Some infrastructure could remain if alternative uses could be found.</p> <p>When the project closes the loss of employment will have a negative economic effect on the livelihoods of the workers and the region. To mitigate this impact all local workers should be notified about the envisaged discontinuation three months in advance.</p>				
Rehabilitation		<p>Reasonable rehabilitation of the site should take place. The proponent will be responsible to put aside funds for rehabilitation. Rehabilitation of the abandoned area will amongst other things include the following:</p> <ul style="list-style-type: none"> ➤ All movable assets to be removed off site. ➤ All waste to be removed from site to prevent later potential excavation by people trying to recover any sort of usable scrap / materials. ➤ All immovable machinery to be dismantled and removed from site. 				
Mitigation	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
Mitigated	L	M	L	L	L	L
Significance of Consequence		If the mitigation hierarchy is followed through to rehabilitation, then the resultant consequence could be insignificant or at worst a low significance.				
Confidence Level		A well designed and well implemented closure plan should provide for a low significance upon closure.				

9 ENVIRONMENTAL MANAGEMENT PLAN

The Environmental Management Plan (EMP) provides management options to ensure impacts of the activities are minimised. An EMP is a tool used to take pro-active action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures might be included if necessary. The draft EMP is found in **Appendix F**.

The objectives of the EMP are:

- to include all components of the operations of the project.
- to prescribe the best practicable control methods to lessen the environmental impacts associated with the operations of 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.

The EMP acts as a stand-alone document, which can be used during the various phases (construction, operational and decommissioning) of the facility. All personnel taking part in the operations should be made aware of the contents of the EMP, so as to plan the relevant operations accordingly and in an environmentally sound manner. The EMP outlines nine environmental management programmes which are to be used for all phases of the exploration activities. Monitoring recommendations are included in the EMP.

The programmes listed and described in the EMP are:

1. Air quality Management Programme
2. Noise Management Programme
3. Health & safety Management Programme (includes Security)
4. Visual Management Programme
5. Stakeholder Communication Management Programme (include socio-economic aspects)
6. Waste Management Programme
7. Ecology Management Programme
8. Water Resource Management Programme
9. Mine Closure & Rehabilitation Management Programme

The proponent could implement an Environmental Management System (EMS) to manage these nine programmes. However, a good EMS goes beyond mere implementation of the EMP. An EMS is internationally recognized as best practice that will ensure ongoing incorporation of environmental constraints. At the heart of an EMS is the concept of continual improvement of environmental performance with resulting increases in operational efficiency, financial savings and reduction in environmental, health and safety risks. An effective EMS would need to include the following elements:

- A stated environmental policy which sets the desired level of environmental performance, An environmental legal register.
- An institutional structure which sets out the responsibility, authority, lines of communication and resources needed to implement the EMS;
- Identification of environmental, safety and health training needs. Implementation of the EMP's Environmental programmes.
- Stipulated environmental objectives and targets to be met, and work instructions and controls to be applied in order to achieve compliance with the environmental policy;
- Periodic (internal and external) audits and reviews of environmental performance and the effectiveness of the EMP and EMS.

10 CONCLUSIONS & RECOMMENDATIONS

The proponent will contribute locally to employment opportunities for both locals and contractors. Skills transfer and training would develop the local workforce during both the construction and Prospecting Phases.

The EMP should be used as an on-site reference document for the design, construction, operations and decommissioning of the project. Parties responsible for transgressing the EMP should be held responsible for any rehabilitation that may need to be undertaken. The proponent could use an in-house Health, Safety, Security and Environment Management System in conjunction with the EMP and its nine management programmes. Personnel must be taught and understand the contents of the EMP as a minimum requirement. Best practice would be the hiring of a suitably qualified and experienced environmental control officer to implement the nine environmental management programmes. Alternatively, the implementing of the programmes should be delegated amongst the management personnel on and off site. The EMP requires minimum and realistic monitoring of the environmental aspects explicitly listed for each of the management programmes.

Based on the information provided in this report, the EAP is confident that the identified risks associated with the project can be reduced to acceptable levels. This is conditional on the implementation of all the measures (i.e., preventions, mitigations, remediations, monitoring etc.) described in the EMP.

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12 APPENDIX A: CURRICULUM VITAE OF ENVIRONMENTAL ASSESSMENT PRACTITIONER

13 APPENDIX B: BACKGROUND INFORMATION DOCUMENT

14 APPENDIX C: PRESS NOTICES (NEWSPAPER ADVERTISEMENTS)

1st November 2022 - The Sun, Die Republikein and Allgemeine Zeitung Newspapers

2 **Republikein Sun** **Allgemeine Zeitung**

Market Watch

TUESDAY 1 NOVEMBER 2022

❖ *A key tool to increase voluntary compliance*

Importance of taxpayer education-Opinion

Taxpayer education can play a vital role at the heart of mobilizing the tax revenues for the government.

DAVID ANGHUWO

Taxation is the significant element in managing national income, especially in developing countries and poverty-stricken. From this backdrop, low tax compliance constrains the capacity of the government to raise revenue for developmental projects and it implies that, with a surge in revenue generation, the government will increase capital expenditure to enhance the living standard of the people. Raising sufficient tax revenues remains a major challenge for many countries including Namibia, especially in light of the impacts of the Covid-19 pandemic. Taxpayer education can be a key tool to boost the willingness of individuals and businesses to voluntarily pay tax, and play a vital role at the heart of mobilizing the tax revenues for the government.

Tax compliance is when taxpayers decide to observe tax laws and regulations by filing returns and paying tax accurately (Mittone & Saredi, 2016). As per the second edition of



PHOTO MARKUS-WINKLER/UNSPASH

Building a Tax Culture, Compliance and Citizenship: A Global Source Book on Taxpayer Education analyses a unique dataset of 140 taxpayer education initiatives deployed in 59 developed and developing countries around the world, offering a classification of different approaches to taxpayer education, and identifying common challenges and solutions. With over 80% of taxpayer initiatives reported to generate an improvement in tax morale, the intrinsic motivation to pay taxes, the study shows that increasing tax literacy can play an active role in shaping a country's tax culture, in which citizens understand the effects of paying or not paying taxes on their daily lives. Most countries have done

much better in collecting taxes. For example, Japan tax compliance level is more than 90%. The National Tax Authorities (NAT) of Japan has been successful in promoting voluntary compliance through the four pillars of tax compliance, and one of those pillars is the education (Yok, 2009).

Having a look at Australia, in which the Australian Tax Office created a program called "Teaching Tax with Tax Files" in 1998 to teach 9 to 12-year-old school children (ATO, 2009). The program features a creative sight-and-sound tax education pack, which contains varying media that provides current data on tax collection. The program is relied upon to instruct the school children on the diverse well-springs of funds of the government and the obligations of a citizen and to build their comprehension of the part that tax assessment plays in a society, including for example, the association between taxation and the provision of public amenities.

World Bank

Other reports by the World Bank also have indicated that taxpayer education has provided a good foundation for tax collection in Tanzania (World Bank, 2017). The observation has been made that taxation education improves tax compliance behaviour of the taxpayers, as they become mindful of their responsibility and penalties for not complying with the taxation laws (Berhane, 2011). Moreover, tax education is considered as one compliance instrument that gives citizens the capacity to grasp taxation laws, which in turn increases their readiness to follow these laws (Kasipillai et al., 2003).

As per the Amuke's report dated 09 April 2021, Namibia's ever-increasing debts are partly the result of citizens and businesses not paying their fair share of taxes. If they did, the budget deficit would decrease, which would lead to a significant

reduction in national debt, which was expected to reach N\$130 billion by the end of that fiscal year, as per the analysts when they were responding to a shocking percentage revealed by the commissioner of the Namibia Revenue Agency (NamRA).

According to Shivute, tax compliance in the country was woefully low and needs to improve. It is noted that tax compliance in Namibia stands at 57%, which is very low. Even within the 57%, not everyone is declaring what they are supposed to pay.

Local economist Salomo Hei said all hopes are pinned on the agency to fulfill its mandate where revenue agencies are stand-alone they tend to improve collections, and we hope NamRA can do the same.

As per one of the analyst who commented anonymously said the low tax compliance as stated by Shivute poses a risk to government revenue, lowering its ability to execute developmental projects that will drive economic growth, equality and

poverty eradication efficiently. If implemented successfully, efficient and increased revenue collections could help increase budgetary allocations to the developmental budget, which would hopefully translate to the productive and efficient implementation of these developmental goals and it's important to note that the nation should strive to align expenditure to revenue and make efficient use of the revenue collected.

Tax base

According to Eloise du Plessis, PSG Namibia's head of research, she spotted out that the size of the tax base in Namibia is problematic already, so when compliance is low this exacerbates the situation. "One would hope that NamRA makes this easier and that more tax is collected, but in her opinion it is more important to make it easier to operate for small businesses to create good jobs. This will broaden the tax base. Trying to tap more blood from a stone is not sustainable. We already have one of the highest tax-to-GDP ratios in the world.

A lack of well-educated and well-trained staff and taxpayers' limited ability to keep accounts hinders the establishment of efficient tax administration.

While taxpayer education can take various forms, reports identifies three main approaches:

Teaching tax, through in-depth, often long-term engagement with all types of audiences, whether young people, adults or entrepreneurs.

Communicating tax, through higher-level awareness-raising engagement with taxpayers. Such initiatives span social media campaigns, tax fairs and TV shows.

Supporting tax compliance by providing practical and direct assistance to taxpayers to facilitate the use of modern e-administration (ITAS) tools and to support taxpayers, especially vulnerable taxpayers, in their tax obligations, including reporting requirements.

Educating taxpayers is not just the occupational of tax administrations. Many of the initiatives presented in the tax study demonstrate the value of effective partnerships with other stakeholders such as schools, business associations and non-governmental organizations.

Taxpayer education is not only about learning in a formal setting, it is also about communication between citizens and tax administrations, including reminding taxpayers of important deadlines, and being transparent and explaining how revenues are used in a way citizens can understand. Taxpayer education also encompasses reaching out to groups of citizens who have limited contact with the tax administration for instance because they are vulner-

able, are far from major cities and villages, or lack access to technology and networks specifically deep north.

Taxpayer education initiatives use the full range of communication media, physical and virtual. It is clear that there is no one-size-fits-all approach to taxpayer education, with countries operating under differing resource constraints undertaking a range of initiatives to achieve a number of objectives.

Benefits

Taxpayer education is a means to building tax culture, compliance and citizenship. It is not only about encouraging people to pay taxes, but also about explaining taxation and its place in society as a whole. Citizens, whether taxpayers or not, benefit from understanding the effects of paying or not paying taxes, both on their daily life and on that of their country. They also benefit from practical knowledge or assistance, for instance on how to actually fill their tax returns. By increasing tax literacy and tax morale, taxpayer education also results in taxpayers being more likely to help tax administrations fight tax evasion and tax fraud.

Lastly, Taxpayer education is a long-term strategy whose main aim is to build a culture of voluntary compliance, an aim that cannot be achieved in the short term. While some aspects of taxpayer education may show short-term impacts, the ultimate objective is almost always to establish long-term behaviours. Taxpayer education initiatives should therefore not be seen as one-off, short-term measures, but rather as part of a continuing effort by the public authorities to positively influence taxpayers' perceptions. At its fullest, a comprehensive taxpayer education strategy should be aimed both at current taxpayers both companies and individuals, to fill the knowledge and information gaps they may have on tax and at future taxpayers, so as to create favourable conditions by helping them understand that tax is the basis of a cohesive society. Moreover, educational initiatives should ideally encompass the three domains analysed in this report: teaching, raising awareness and assisting, to ensure that taxpayers are educated, informed and capable of complying.

This article is concerned with the relationship between tax education and tax compliance behaviour in Namibia. This topic is highly important as tax education influences the compliance level which in turn can hamper the government's ability to provide public amenities for its citizens. Therefore, when the problem is checked and monitored, this may help increase revenue. In turn, the provision of social amenities and other infrastructure becomes possible and the dependency on the international grants and loans will be reduced. If the evasive activities continue to be unchecked, sooner or later, the government will continue be indebted.

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED EXPLORATION ACTIVITIES WITHIN EXCLUSIVE PROSPECTING LICENCE (EPL) 7873, EPUPA AND OPUWO RURAL CONSTITUENCIES, KUNENE REGION

Notice is hereby given in terms of the Environmental Management Act, No.7 of 2007 and the Environmental Impact Assessment (EIA) Regulations (Government Notice No. 30 of 2012) that an application will be made to the Environmental Commissioner for an environmental clearance of the planned minerals prospecting activities on EPL 7873.

Commodities: Base and rare metals, Dimension stone, Industrial minerals, non-nuclear fuel minerals, Nuclear fuels minerals, Precious metals and Semi-precious stones.

Location of the EPL area: 105 km northwest from Opuwo via the D3703 district road towards Otjitanda, Kunene Region covering portions of Orupembe, Sanitatas, Okondjombo, Etanga and Otjitanda communal conservancies.

Interested and Affected Parties (I&AP) are requested to register to obtain a Background Information Document. Any comments to the proposed activities may be lodged motivated in writing to the address provided below by **21st November 2022**. The full Environmental Impact Assessment (EIA) report and the draft Environmental Management Plan (EMP) will be provided to the registered I&AP once it is made available.

Contact Details:

Postal Address: P. O. Box 81307, Olympia, Windhoek
Tel: +264 81 435 1689
E-mail: oliver@gecko.na OR lovisa.armwelle@gecko.na

DAVID ANGHUWO PHOTO CONTRIBUTED



15 APPENDIX D: STAKEHOLDERS LIST, COMMENTS & CORRESPONDENCE

Stakeholders and Registered Interested & Affected Parties list and communication

Name	Title / Office / Role	Organization / Ministry	Tel. Contact	Email
	Kunene Regional Council	Regional Government	065-273950	
	Ministry of Land & Resettlement	Ministry	065-273487	
	Ministry of Tourism and Environment	Ministry	065-273003	
Tjomi Tjatika				tjomis8@gmail.com
Nikola Fahrbach				nikola.fahrbach@gmail.com
Amos Tjambiru	Secretary to the chief	Kakurukouje Traditional Authority		tjambiruamos@gmail.com

From: Tjomi Shatika <tjomis8@gmail.com>

Sent: Friday, November 18, 2022 10:57 AM

To: Oliver Krappmann <oliver@gecko.na>; Lovisa Amwele <lovisa.amwele@gecko.na>

Cc: iindongo@ombudsman.org.na; Oiva Amuthenu <oamuthenu@ombudsman.org.na>; ivanwyk@ombudsman.org.na; chirchir.isabella@mme.gov; timateus.mufeti@met.gov.na; mureket@gmail.com; raphaelmalakia8@gmail.com; Jan Slagvert <jslagvert@gmail.com>; daniel kuuoko <ktuazima@gmail.com>

Subject: Environmental Impact Assessment for Proposed Exploration Within EPL 7873, Epupa and Opuwo Rural Constituencies, Kunene Region

Dear Oliver/ Lovisa,

My name is Tjomi Shatika and I am a resident of the Epupa Constituency and Kunene Region at large.

I am hereby writing this email to register my official interest in the proposed exploration activities in my constituency and region.

Hence, may you kindly provide the background information document as indicated in the notice shared in the Namibian Sun Newspaper on Wednesday, tje 16th of November 2022 and hefewith attached.

Looking forward to receiving the background information. Thank you.

Kind regards,

Tjomi Shatika
Resident of Epupa Constituency and Kunene Region



Lovisa Amwele

To [Tjomi Shatika](#); [Oliver Krappmann](#)
Cc [iindongo@ombudsman.org.na](#); [Oiva Amuthenu](#);
[ivanwyk@ombudsman.org.na](#); [chirchir.isabella@mme.gov](#); **+5 others**



11/21/2022



Dear Tjomi,

Thank you for your interest in our project.

You have been registered as an Interested and Affected Party (I&AP) for the proposed minerals prospecting activities within EPL 7873, Epupa and Opuwo Rural Constituency, Kunene Region.

Kindly receive the Background Information Document (BID) attached hereto for your review and commentary. We will keep you informed as the project progresses.

Should you require any further information, please do not hesitate to contact us.

Thank you and,

Kind Regards
Lovisa



Tjomi Shatika <tjomis8@gmail.com>

To [Lovisa Amwele](#)
Cc [Oliver Krappmann](#); [iindongo@ombudsman.org.na](#); [Oiva Amuthenu](#);
[ivanwyk@ombudsman.org.na](#); [chirchir.isabella@mme.gov](#); **+6 others**



11/24/2022

Start your reply all with: [Thank you for the confirmation.](#) [Thank you!](#) [Noted with thanks.](#) [Feedback](#)

Dear Lovisa,

Document well received.

Kind regards

Tjomi Shatika



Tjomi Shatika <tjomis8@gmail.com>

To Oliver Krappmann; Lovisa Amwele
Cc murekeket@gmail.com



9/7/2021

Dear Oliver,

Thank you for your response.

Firsrtly, Kunene Community Radio only broadcasts within the Opuwo locality hence it does not reach us here in our villages.

Secondly, many people here do not have access to the Otjiherero Radio Station.

Our suggestion would be for your institution to come meet the people on the ground and explain everything in detail to them.

The community has a lot of questions about these mining activities especially taking into account what is currently happening in Oroutumba.

We, the community, will study the documents thoroughly to acquaint ourselves with the benefits and especially drawbacks of these mining activities.

Kind regards,

Tjomi Shatika

Resident of Otjimuhaka, Oroutumba and the surrounding villages

RE: Registration as I&AP for Epupa and Opuwo Rural Constitue...



Lovisa Amwele
To Nikola Fahrbach
Cc Oliver Krappmann



11/1/2022



Dear Nikola,

Thank you for your interest in our project.

You have been registered as an Interested and Affected Party (I&AP) for the proposed minerals prospecting activities within EPL 7873, Epupa and Opuwo Rural Constituency, Kunene Region.

Kindly receive the Background Information Document (BID) attached hereto for your review and commentary.

Should you require any further information, please do not hesitate to contact us.

Thank you and,

Kind Regards
Lovisa

From: Nikola Fahrbach <nikola.fahrbach@gmail.com>

Sent: Tuesday, November 1, 2022 2:07 PM

To: Oliver Krappmann <oliver@gecko.na>; Lovisa Amwele <lovisa.amwele@gecko.na>

Subject: Registration as I&AP for Epupa and Opuwo Rural Constituency

Dear Oliver and Lovisa,

Please register ne for the above mentioned matter.

Kind regards
Nikola Fahrbach

16 APPENDIX E: CONSENT LETTER



KUNENE RESOURCES NAMIBIA (PTY) LTD

A MEMBER OF

NAMIBIA CRITICAL METALS INC.

28 March 2022

Reference No: 14/2/4/1/7873

To: Chief Vemui Tjampiru
Kakurukouje Traditional Authority
Opuwo, Kunene Region
Namibia

Dear Chief Tjampiru,

RE: CONSENT FROM THE KAKURUKOUJE TRADITIONAL AUTHORITY TO CONDUCT PROSPECTING ACTIVITIES ON EXCLUSIVE PROSPECTING LICENCE (EPL) 7873

As per the terms of Section 69 (2) (g) (IV) of the Minerals (Prospecting and Mining) Act, 33 of 1992 and Section 30 (1) of the Guide to the Communal Land Reform Act, 5 of 2002, Kunene Resources Namibia hereby appeals to your respectable office for consent to conduct mineral exploration on EPL 7873.

Kunene Resources has been conducting prospecting activities in the Kunene Region since 2011. The company has discovered a number of small scale deposits on these tenements, and hopes to extend this footprint of mineral deposit discovery onto EPL 7873. It is in this light that we seek consent from the Kakurukouje Traditional Authority to conduct mineral exploration in this area.

With the commencement of the mineral exploration of Kunene Resources, a contribution of **N\$ 10,000** will be made to the Kakurukouje Traditional Authority to cover any unforeseen expenses related to our prospecting activities in your jurisdiction upon commencement. The company will also commit itself to involve the local communities where ever possible to guarantee a direct benefit of the communities from the exploration activities.

The company would appreciate the opportunity to conduct mineral exploration on EPL 7873, and the support of the Kakurukouje Traditional Authority in achieving our goals.

This letter confirms that a formal consultation and discussion regarding the planned prospecting activities of Kunene Resources on EPL 7873 took place between the company and the Kakurukouje Traditional Authority.

Yours sincerely,

Dr. Rainer Ellmies
Vice-President Exploration
Namibia Critical Metals Inc.

KUNENE RESOURCES (PTY) LTD (Registration No.: 2012/0471)

8 Sinclair Street | P O Box 81307 | Windhoek | Namibia | Tel +264 61 225826 | Fax +264 61 225304

Directors: S.S. Nashivela (Namibian) | M.J. Du Toit (Namibian)



KUNENE RESOURCES NAMIBIA (PTY) LTD

A MEMBER OF

NAMIBIA CRITICAL METALS INC.

I, **Chief Vemui Tjampiru**, in my capacity as Chief of the Kakurukouje Traditional Authority hereby confirm that I am empowered to duly authorise and accept the prospecting program of Kunene Resources Namibia on EPL 7873. The Kakurukouje Traditional Authority allows Kunene Resources to proceed with the proposed work program.

Signed: <u>VEMUI</u> Date: <u>30/03/2022</u>	<p>THE KAKURU-KOUJE TRADITIONAL AUTHORITY OFFICE OF THE CHIEF 2022-03-30 Tel: +265 274 406 Cell: +264 606 9763</p>
Witness: <u>KM</u> Date: <u>30/03/2022</u>	

I, **Gideon Kalumbu**, in my capacity as Chief geologist for Gecko Exploration (Pty) Ltd, hereby confirm that I am duly authorised to represent Kunene Resources Namibia (Pty) Ltd, in the discussion on the prospecting program planned on EPL 7873.

Signed: Gideon Kalumbu
Date: 30/03/2022
Witness: [Signature]
Date: 30/03/2022

KUNENE RESOURCES (PTY) LTD (Registration No.: 2012/0471)

8 Sinclair Street | P O Box 81307 | Windhoek | Namibia | Tel +264 61 225826 | Fax +264 61 225304

Directors: S.S. Nashivela (Namibian) | M.J. Du Toit (Namibian)

17 APPENDIX F : DRAFT ENVIRONMENTAL MANAGEMENT PLAN
