A SCOPING REPORT ON THE ENVIRONMENTAL IMPACT ASSESSMENT FOR MINERAL EXPLORATION ACTIVITIES ON EPL 8314, NORTHERN NAMIBIA

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ENVIRONMENTAL ASSESSMENT FOR MINERAL EXPLORATION ON EPL 8314, NORTHERN NAMIBIA

EXECUTIVE SUMMARY

1. Introduction

1.1 Overview

The proponent, Qualicom Investments CC, was granted an exclusive prospecting licence (EPL) by the Ministry of Mines and Energy. The licence holder intends to explore for copper. Impala Environmental Consulting was appointed by the proponent to undertake an Environmental Assessment (EA) and Environmental Management Plan (EMP) for the mineral exploration project.

1.2 Location

The mineral license is located 25 km south of Ruacana, along the C35 road. The coordinates for the centre of the licence are 17.621467 and 14.156111.

1.3 Environmental Assessment Requirements

The Environmental Regulations procedure (GN 30 of 2012) stipulates that no mining and mineral exploration activities may be undertaken without an environmental clearance certificate. As such, an environmental clearance certificate must be applied for in accordance with regulation 6 of the 2012 environmental regulations. It is imperative that the environmental proponent must conduct a public consultation process in accordance with regulation 21 of the 2012 environmental procedure, produce an environmental scoping report and submit an Environmental Management Plan for the proposed mineral exploration activities.

1.4 Project Alternatives

An alternative to the proposed mineral exploration activity would be to allocate the land-usage to other income generating activities tourism activities. The proposed project will strictly employ locals from nearby towns and settlements.



ENVIRONMENTAL ASSESSMENT FOR MINERAL EXPLORATION ON EPL 8314, NORTHERN NAMIBIA

FINAL SCOPING REPORT

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1. Introduction

1.1 Project Background

The proponent, Qualicom Investments CC, was granted an exclusive prospecting licence (EPL) by the Ministry of Mines and Energy. The licence holder intends to explore for Copper. An outline of the area is shown in the image below.



Figure 1 A satellite imagery showing the orientation of the mineral exploration licence.



Figure 2 shows the surrounding farms of the project area. The licence falls within a traditional authority area.

1.1.1 Mineral Licence Tenure

The exclusive prospecting number is 14/2/1/4/2/8314. The mineral licence is issued to Qualicom Investments CC.

The size of the mineral licence is **35380.5546 Hectares**. It is granted Base and Rare Metals, Dimension Stone, Industrial Minerals and Precious Metals commodities.

1.1.2 Environmental Consultant

Impala Environmental Consulting cc was appointed by the proponent to undertake an Environmental Assessment (EA) and Environmental Management Plan (EMP) for the mineral exploration project. Impala does not have any interest, be it business, financial, personal or other, in the proposed activity, application or appeal, other than fair remuneration for work performed on this project. The public participation process and report writing was overseen by Mr. Ndaluka Amutenya as the EAP. CV's of various role players are annexed to the appendix section of this report.

1.1.3 Proponent of the Proposed Project

The Exclusive Prospecting Licence belongs to Qualicom Investments CC.

Licence Holder	Postal Address	Email Address	Contact
Qualicom	PO Box 24756,		26481481293
Investments CC	Windhoek, Khomas, 9000, Namibia		3





1.2 Project Location

The mineral license is located about 25 km south of Ruacana, along the C35 road. The coordinates for the centre of the licence are 17.621467 and 14.156111.



Figure 3 Locality map of the exclusive prospecting licence area



1.3 Infrastructure and Services

1.3.1 Electricity

At this stage, electricity requirements for the project are minimal. The bulk of the power supply to the exploration site will be sourced from the proponent's own generator. The power requirements for the proposed project will be minimal as power will only be required for the following activities:

- Emergency lighting.
- Powering small machinery during the mineral exploration process.
- Power supply for temporary office block or container if necessary.

1.3.2 Water Supply

The water requirements for the project are minimal. Water containers will be brought on site and utilised whenever necessary. The water will mostly be used for general consumption and cleaning. The water used for drilling will be recycled.

1.3.3 Refuse and Waste Removal

The proponent will negotiate directly will all suppliers of consumables such as grease, oil etc. to remove these materials for disposal once they have been used and need to be discarded. The proponent will provide adequate temporary sanitary facilities and such facilities must be maintained in a hygienic condition. Sewerage will be disposed of in a manner not polluting the environment. The proponent will remove all refuse pertaining to the proponent's activities, domestic or otherwise, from the property. The Miner will undertake environmental rehabilitation, both during and at the conclusion of the mineral exploration operations.

1.3.4 IT Systems and Communication

If drilling commences, provision will be made for two-way radios to enable the drill rig operators and the on-site staff to communicate effectively.

1.3.5 Security and Fencing

No provision has been made for fencing although strict access to and from the exploration site will be facilitated by personnel.



1.3.6 Buildings

At this stage, no exploration camp will be set up and so provision will be made for prefabricated containers.

1.3.7 Roads

Access to the mineral exploration sites is limited as there are currently no convenient roads, except for 4x4 tracks.



Figure 4 Topographic map showing the existing road network within the licence area.

1.3.8 Mobile Equipment

The proponent's vehicle fleet will be optimised during the next project phase. Provision will be made 4x4 vehicles and a drill rig.

1.3.9 Fuel Distribution, storage and supply

During the drilling phase, diesel will be delivered to the by road transport and offloaded into the vehicles by offloading pumps.

1.3.10 Storage of Lubrication and consumables

During the drilling phase, consumables and lubricants will be stored in a designated area within a container. These substances will only be used for mechanical purposes and are assumed to be non-hazardous.

1.3.11 Fire Fighting Provision

Portable fire-extinguishers will be fitted, as required, in vehicles and, as well as in the mobile containers where possible.

1.4 Environmental Impact Assessment Requirements

The Environmental Regulations procedure (GN 30 of 2012) stipulates that no mineral exploration activities may be undertaken without an environmental clearance certificate. As such, an environmental clearance certificate must be applied for in accordance with regulation 6 of the 2012 environmental regulations. It is imperative that the environmental proponent must conduct a public consultation process in accordance with regulation 21 of the 2012 environmental procedure, produce an environmental scoping report and submit an Environmental Management Plan for the proposed mineral exploration activities.

1.5 Purpose of the Scoping Report

The scoping report is prepared for the Environmental Impact Assessment for mineral exploration on an area which is located about 25 km north of Outjo, along the D2780 road. Environmental scoping is a critical step in the preparation of an EIA for the proposed mineral exploration activities. The scoping process identifies the issues that are likely to be most important during the EIA and eliminates those that are of little



concern. The scoping process shall be concluded with the establishment of terms of reference for the preparation of an EIA, as set out by the Ministry of Environment and tourism. The purpose of this scoping report is to:

- Identify any important environmental issues to be considered before commencing with mineral exploration activities on the proposed mineral exploration sites.
- To identify appropriate time and space boundaries of the EIA study.
- To identify information required for decision-making.

As such, the key objectives of this scoping study are to:

- Inform the public about the proposed mineral exploration activities.
- Identify the main stakeholders, their comments and concerns.
- Define reasonable and practical alternatives to the proposal.
- To establish the terms of reference for an EIA study.

1.6 Terms of Reference

The approach and methodology taken was guided by the Environmental Regulations of 2012 and the Terms of Reference (ToR) which were provided by the proponent:

- Identify all legislation and guidelines that have reference to the proposed project.
- Identify existing environmental (both bio-physical and socio-economic) conditions of the area in order to determine their environmental sensitivity.
- 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.
- Consider the potential environmental and social impacts of the development and assess the significance of the identified impacts.
- Compile a Scoping Report detailing all identified issues and possible impacts, stipulating the way forward and identifying specialist investigations, if required.



- Outline management and mitigation measures in an Environmental Management Plan (EMP) to minimize and/or mitigate potentially negative impacts.
- Submit the final scoping report to the competent authority and the Environmental Commissioner.





Figure 5 Flowchart of the Environmental Impact Assessment process followed in Namibia.



1.6.1 Environmental Assessment Approach and Methodology

Environmental assessment process in Namibia is governed by the Environmental Impact Assessment (EIA) Regulations No. 30 of 2012 gazetted under the Environmental Management Act, (EMA), 2007, (Act No. 7 of 2007) and in line with the provisions of the Cabinet approved Environmental Assessment Policy for Sustainable Development and Environmental Conservation of 1995.

This report has taken into consideration all the requirements for preparation of all the supporting documents and application for an Environmental Clearance Certificate and lodgement of such application to the Environmental Commissioner (EC), Department of Environmental Affairs (DEA) in the Ministry of Environment and Tourism (MET).

The purpose of the Scoping Phase was to communicate the scope of the proposed project to Interested and Affected Parties (I&APs), to consider project alternatives, to identify the environmental (and social) aspects and potential impacts for further investigation and assessment, and to develop the terms of reference for specialist studies to be conducted in the Impact Assessment Phase if necessary. The steps undertaken during the Scoping Phase are summarised below.

1.6.1.1 Project Initiation and Screening

The project registered on the online ECC portal (eia.met.gov.na) in order to provide notification of the commencement of the EIA process and to obtain clarity on the process to be followed.

1.6.1.2 Initial Scoping Public Participation Process

The objective of the public scoping process was to ensure that interested and affected parties (I&Aps) were notified about the proposed project, given a reasonable opportunity to register on the project database and to provide initial comments. Steps that were undertaken during this phase are summarised below:

 I&AP identification: A preliminary I&AP database was compiled using the farmer's contact details that were obtained from the Ministry of Lands and contact details of other interested and affected parties that were provided by the proponent. Additional I&AP's were added to the database based on



responses to the advertisements and notification letters, as well as attendees to the various meetings.

- Notification letter and Background Information Document (BID): A notification letter and Background Information Document was distributed for review and comment for a period of 3-4 weeks after commencement of the project.
- Advertisements and site notice: Advertisements announcing the proposed project, the availability of the BID, public meetings and the I&AP registration / comment period were placed in two widely distributed newspapers for two consecutive weeks. Site notices were placed on the boundaries of farm fences and on the notice boards of the Regional Council.

Over and above the issues raised were incorporated into the scoping report. These submissions were collated and responded to as indicated in the public participation section of the scoping report.

1.6.1.3 Compilation and Review of Draft Scoping Report (DSR)

The DSR was prepared in compliance with Section 8 of the EIA Regulations of 2012 and incorporated with comments received during the initial Public Participation Process. The DSR was distributed for a 14-day review and comment period.

1.6.1.4 Final Scoping Report and Completion of the Scoping Phase

The Final Scoping Report (FSR) summarises the following: the legal and policy framework; approach to the EIA and process methodology; the project's need and desirability; proposed project activities; key characteristics of the receiving environment; and key issues of concern that will be further investigated and assessed in the next phase of the EIA.

The FSR complies with Section 8 of the EIA Regulations 2012. All written submissions received during the DSR review and comment period will be collated and responded to. The FSR was submitted to the competent authority. In terms of Section 32 of the Environmental Management Act, 2007 (No. 7 of 2007), the competent authority is then required to make a recommendation on the acceptance or rejection of the report to Ministry of Environment and Tourism (MET): Department of Environmental Affairs (DEA), who will make the final decision.



1.6.2 List of Specialist Studies Undertaken

Section 9(a) of the Environmental Regulations of 2012 requires a disclosure of all the tasks to be undertaken as part of the assessment process, including any specialist to be included if necessary.

The mineral exploration project has not commenced yet. This means that the proponent has not conducted any surface exploration activities (i.e. geophysical survey, geological mapping and geochemical sampling) to find anomalies and determine suitable targets which can be tested with drilling. As such, no field specific specialist studies were commissioned by the proponent as no specific target area has been delineated yet. Although specialist studies were deemed unnecessary for this environmental impact assessment due to low intensity and extent of the exploration activities at this stage, a heritage impact assessment study was undertaken for this project. Specialist studies conducted in the area, in previous years, have been reviewed as part of the scoping and assessment process of this project.

After the proponent successfully drills a delineated target, undertakes a feasibility study and confidently decides to proceed with mining, a full environmental impact assessment will be carried out with appropriate site-specific specialist studies on groundwater, air-quality, fauna, flora, archaeology and avifauna.

1.7 Need and Desirability

1.7.1 Need of the Exploration Project

Mineral exploration companies play an important role in the development of a country's mineral resources. When minerals are mined, the company selling the product must pay a royalty to the government). The royalties are set by the government at a level that will encourage others to risk their capital in finding and developing these minerals, rather than the government risking taxpayer's money. This way the country can share in benefit of mineral resources without risking funds required for key everyday services to the community.

Namibia has a long tradition of mining. In 2018, mining contributed 14% of GDP and expanded 28%. In 2019, the mining industry contributed over 300 million dollars to government revenue. The whole industry contributed around 2.2 billion dollars to the national economy in the same period. However, a drop in diamond and uranium



production caused a contraction of 11,1%. Lower mineral commodity prices led to the declining expenditure on exploration. In 2019, the mining industry paid over 300 million dollars in wages and salaries and provided 16 324 direct jobs with 9 027 permanent employees. Temporary jobs figured out 800, while 6 515 were contractor jobs.

The exploration project may assist in helping Namibia attain some of the goals set out in National Development Plans such as the Fifth National Development Plan (NDP5) and the Harambee Prosperity Plan (HPP). During the exploration phase, the project will provide employment to at least 15 people from the surrounding towns and settlements. If the exploration project leads to the discovery of an economically viable mineral deposit, this may subsequently lead to the development of a mine within the area. A mine can significantly contribute to social-economic development around the surrounding community.

1.7.2 Alternatives

During the application of the exploration licence, no alternative sites were considered. The proposed exploration site has shown the potential to host an orogenic gold deposit.

1.7.2.1 Exploration Method Alternatives

Geochemical sampling and geological mapping methods will be used during the initial exploration period until a target is delineated. Thereafter, reverse circulation and diamond drilling methods will be employed to test the depth and extent of the mineralised rock units. If more modern, effective, and environmentally friendly exploration methods than the preferred ones are developed, such methods will be assessed and or considered.

1.7.2.2 No-Go Alternatives

The no-go alternative will mean that the current land activities such as farming and important vegetation species will not be disturbed, that is, there will not be disturbance of the flora and fauna.

No-go alternative will result in the non-exploration of minerals and bring beneficiations to the receiving environment. However, the no-go alternative is not considered since it will lead to negative socio-economic impacts.



2 Summary of applicable legislation

All mineral rights, related to mineral exploration activities in Namibia, are regulated by the Ministry of Mines and Energy whereas the environmental regulations are regulated by the Ministry of Environment and Tourism. The acts that affect the implementation, operation and management of mineral exploration activities in Namibia are shown below.

2.1 Environmental Management Act of 2007

Line Ministry: Ministry of Environment and Tourism

The regulations that accompany this act lists several activities that may not be undertaken without an environmental clearance certificate issued in terms of the Act. The act further states that any clearance certificate issued before the commencement of the act (6 February 2012) remains in force for one year. If a person wishes to continue with activities covered by the act, he or she must apply for a new certificate in terms of the Environmental Management Act.

2.2 The Minerals Prospecting and Mining Act of 1992

Line Ministry: Ministry of Mines and Energy

The Minerals Prospecting and Mining Act No.33 of 1992 approves and regulates mineral rights in relation to exploration, reconnaissance, prospecting, small scale mining, mineral exploration, large-scale mining and transfers of mineral licences.

2.3 Water Resources Management Act of 2004

Line Ministry: Ministry of Agriculture, Water and Forestry

The act provides for the management, protection, development, usage and conservation of water resources; to provide for the regulation and monitoring of water resources and to provide for incidental matters.

2.4 Nature conservation ordinance, ordinance No. 4 of 1975

Line Ministry: Ministry of Environment and Tourism

The Nature Ordinance 4 of 1975 covers game parks and nature reserves, the hunting and protection of wild animals (including reptiles and wild birds), problem animals, fish,



and the protection of indigenous plants. It also establishes a nature conservation board. The basic set of regulations under the ordinance is contained in GN 240/1976 (OG 3556). The topics covered in the regulations include tariffs (game parks), regulations relating to game parks, swimming baths, use of boats in game parks, inland fisheries, keeping game and other wild animals in capturing. In addition, the ordinance also regulates game dealers, game skins, protected plants, birds kept in cages, trophy hunting of hunt-able game, hunting at night, export of game and game meat, sea birds, private game parks, nature reserves, regulations of wildlife associations and registers for coyote getters.

2.5 National Heritage Act, 2004 (Act No. 27 of 2004)

Line Ministry/Body: National Heritage Council

The National Heritage Act provides for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register; and to provide for incidental matters.

2.6 Petroleum Products and Energy Act No. 13 of 1990

Line Ministry/Body: Ministry of Mines and Energy

The act regulates the importation and usage of petroleum products. The act reads as "To provide measures for the saving of petroleum products and an economy in the cost of the distribution thereof, and for the maintenance of a price thereof; for control of the furnishing of certain information regarding petroleum products; and for the rendering of services of a particular kind, or services of a particular standard; in connection with motor vehicles; for the establishment of the National Energy Fund and for the utilization thereof; for the establishment of the National Energy Council and the functions thereof; for the imposition of levies on fuel; and to provide for matters incidental thereof".

2.7 Forest Act, No. 12 of 2001

Line Ministry/Body: Ministry of Agriculture, Water and Forestry



The act regulates the cutting down of trees and reads as follows "To provide for the establishment of a Forestry Council and the appointment of certain officials; to consolidate the laws relating to the management and use of forests and forest produce; to provide for the protection of the environment and control and management of forest trees; to repeal the preservation of Bees and Honey proclamation 1923, preservation of Trees and Forests Ordinance, 1952 and the Forest Act, 1968; and to deal with incidental matters".

The constitution defines the function of the Ombudsman and commits the government to sustainable utilization of Namibia's natural resources for the benefit of all Namibians and describes the duty to investigate complaints concerning the over-utilization of living natural resources for the benefit of all Namibians and describes the duties to investigate complaints concerning the over-utilization of living natural resources, the irrational exploitation of non-renewable resources, the degradation and the destruction of ecosystem and failure to protect the beauty and character of Namibia. Article 95 states that "the state shall actively promote and maintain the welfare of the people by adopting; inter-alia policies aimed at maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of natural resources on a sustainable basis for the benefit of all Namibians both present and future".

2.8 Atmospheric Pollution Prevention Ordinance 11 of 1976

Line Ministry/Body: Ministry of Health and Social Services

This ordinance provides for the prevention of air pollution and is affected by the Health Act 21 of 1988. Under this ordinance, the entire area of Namibia, with the exception of East Caprivi, is proclaimed as a controlled area for the purposes of section 4(1) (a) of the ordinance.

2.9 Hazardous Substance Ordinance, No. 14 of 1974

Line Ministry/Body: Ministry of Safety and Security

The ordinance provides for the control of toxic substances. It covers manufacture, sale, use, disposal and dumping as well as import and export. Although the



environmental aspects are not explicitly stated, the ordinance provides for the importing, storage and handling.

2.10 Namibian Water Corporation (Act 12 of 1997)

Line Ministry/Body: Namibian Water Corporation

The act caters for water rehabilitation of prospecting and mineral exploration areas, environmental impact assessments and for minimising or preventing pollution.

2.11 Public and Environmental Health Act, 2015

Line Ministry/Body: Ministry of Health and Social Services

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

2.12 Agricultural (Commercial) Land Reform Act 6 of 1995

Line Ministry/Body: Ministry of Lands, Resettlement and Rehabilitation

To provide for the acquisition of agricultural land by the State for the purposes of land reform and for the allocation of such land to Namibian citizens who do not own or otherwise have the use of any or of adequate agricultural land, and foremost to those Namibian citizens who have been socially, economically or educationally disadvantaged by past discriminatory laws or practices; to vest in the State a preferent right to purchase agricultural land for the purposes of the Act; to provide for the compulsory acquisition of certain agricultural land by the State for the purposes of the Act; to regulate the acquisition of agricultural land by foreign nationals; to establish a Lands Tribunal and determine its jurisdiction; and to provide for matters connected therewith.



3 Description of Proposed Mineral exploration Project

3.1 Introduction

Copper is a chemical element with the symbol Cu (from Latin: cuprum) and atomic number 29. It is a soft, malleable, and ductile metal with very high thermal and electrical conductivity. A freshly exposed surface of pure copper has a pinkish-orange colour. Copper is used as a conductor of heat and electricity, as a building material, and as a constituent of various metal alloys, such as sterling silver used in jewellery, cupronickel used to make marine hardware and coins, and constantan used in strain gauges and thermocouples for temperature measurement.

Copper is one of the few metals that can occur in nature in a directly usable metallic form (native metals). This led to very early human use in several regions, from c. 8000 BC. Thousands of years later, it was the first metal to be smelted from sulphide ores, c. 5000 BC; the first metal to be cast into a shape in a mold, c. 4000 BC; and the first metal to be purposely alloyed with another metal, tin, to create bronze, c. 3500 BC.

Copper used in buildings, usually for roofing, oxidizes to form a green Verdigris (or patina). Copper is sometimes used in decorative art, both in its elemental metal form and in compounds as pigments. Copper compounds are used as bacteriostatic agents, fungicides, and wood preservatives.

3.2 Techniques for Mineral Exploration

3.2.1 Target Generation

Target generation involves certain stages, such as mapping, geochemical survey and remote sensing. Mapping includes development of the geological, topographical (base), geochemical, and structural maps. Geological map focuses on identifying and mapping outcrops, describing mineralization and alteration zones, and making geological cross sections. In other words, it relies on the identification of rocks and minerals and the understanding of the environment in which they form. It aims to find what rock types occur at or close to the surface and how these rock types are related to each other, e.g., by defining their boundaries, ages, and structure. Topographical map, which is a base map, depicts the topographical features (contour, hill, stream, etc.). Geochemical map includes surface sample locations and results, including analyses of rock, silt, and soil samples. Geophysical map depicts the geology and



results obtained from geophysical survey. Structural map shows the orientation data (strike, dip, type, etc.) of bedding planes, faults, folds, joints and other structural features. They are all gathered to be used for the interpretation in copper mineral exploration (Mentes, 2012).

3.2.1.1 Geochemical Survey

Geochemical survey is a kind of sampling method in mineral exploration and results in 'Assay' after laboratory works. Exploration geochemistry has evolved from its early origins using the chemistry of the environment surrounding a deposit in order to locate it. In mineral exploration studies, geochemical methods involve the geochemical analysis of geological materials, including rock, soil, and stream sediment or silt sediment. In addition to these surface samples, any materials obtained from drilling can be analysed for the evaluation. This survey provides physical results to be worked on for the further interpretation and is used for identifying geochemical anomalies, which are used for geochemical mapping (Mentes, 2012). During the first phase, the type of sampling methods that will be applied are bulk sampling.

3.2.1.2 Remote Sensing

Remote Sensing is the collection of information about an object or area without being in physical contact with it. Data gathering systems used in remote sensing are photographs obtained from manned space flights or airborne cameras, and electronic scanner or sensors such as multispectral scanners in satellites or airplanes and TV cameras, all of which record data digitally. Aerial photography and satellites allow people to work with modern techniques. Aerial photography is used to sense the amount (quantity) of mineral in a particular area. The mineral exploration team collects information such as tracks, roads, fences, and habitation, as well as maps of outcrops, regolith, and vegetation cover across a region. Landsat image (satellite imagery) is used both for the visible light spectrum over mineral exploration (Mentes, 2012).

3.2.2 Target Drilling

Target drilling is the process whereby rigs or some operated tools are used to make boreholes to intercept a rock unit. It can be done by contractors with more experienced operators. This method is used to obtain very detailed information about rock types,



mineral content, and rock fabric, and the relationships between rock layers close to the surface and those at depth. Then, subsurface geology in an area is evaluated after the results are obtained. That indicates if the potentially economic resources are present or not.

3.2.3 Resource Evaluation

It is an evaluation of tonnage (volume) and grade (concentration or weight percent) of the ore body. The volume is determined by using drill data to outline the deposit in the subsurface, and by using geometric models to calculate the volume. The grade is the average concentration determined from numerous assays of drill samples. The purpose of the resource evaluation is to understand the possibility to expand the known size of the deposit and mineralization. This step should give an information or idea about proceeding of mineral exploration activities. Resources at this work are determined during exploration and do not provide certain results of grade and tonnage. In order to get an exact size, quality of the commercial mineral, 'reserve definition', which is next step of mineral exploration studies, is used (Mentes, 2012).

3.2.4 Resource Definition

Reserve definition is important to transform a mineral resource into an economic asset, which is an ore reserve and find the answer if it is valuable or not. 'Reserve' is more intensive, technical, and well characterized term with its exact quality and size relative to 'Resource'. Also, reserve estimation may be changed over time because of the assessments during and after the mining. The main purpose of this stage is the making decision on the techniques just before extraction as a result of the results. It includes technical, economic evaluation, geotechnical assessment, and engineering studies of the rocks surrounding the deposit to determine the potential parameters of proposed open pit or underground mining methods. At the end of this process, a feasibility study is published, and the deposit is supposed to either be uneconomic or economic.

3.3 Labour Requirements

The proponent intends to employ about 5-15 personnel, including 3 management staff for the first phase of the project. The employees will be sourced from the local community including people from Ruacana. All employees will undergo a safety



induction, first aid training course and wildlife awareness program. The Labour Act of 2007 will always be adhered to.



4 Description of the Current Environment

4.1 Introduction

This section aims to document the present state of the environment, the likely impact of changes being planned and the regular monitoring to attempt to detect changes in the environment. As such, this area represents a high fauna diversity.

The proposed area form part of Ruacana constituency, Omusati Region in northern Namibia. The district capital is Outapi town, which is about 80 km from the power station. Ovazemba and Ovahimba people are native to the area.

Omusati Region is characterised by recurrent droughts and flash floods, the climate at Ruacana is considered to be a semi-arid climate with little rainfall.

The area is located in the Savanna biome; it is dominated by species such as Mopane (Colophospermum mopane) and Shepard's tree (Boscia albitrunca). The biome supports a high concentration of various species which are endemic to the region. Due to variable climatic events, the biome is vulnerable to inappropriate management and over-use, resulting in degradation and loss of productive potential. The large blocks of porphyroblastic gneiss, pink to grey in colour, characterise the geology at Ruacana, with incidental intercalation of chlorite-schists, hornblende schists and mica-schists materials.

Agricultural activities in the wider Ruacana area include livestock, crop and poultry production, feedlots, aquaculture and irrigation schemes.

The famous Ruacana Falls located in the area is about 120 m. tall and 700 m. wide. This epic waterfall is one of the largest in Africa. Ruacana falls and the power station are known as tourist destinations or used as a signpost to other popular tourist destinations such as the Epupa Falls (over 100 km to the north-west) and Etosha National Park (over 200 km to the south-east) and Kaokoland.



4.2 Climatic Conditions

4.2.1 Temperature

In the proposed area, the average annual temperature is 22.1 °C. Generally November is the warmest month of the year with temperatures averaging 30 °C and July is the coolest with the lowest average temperature of 17.3 °C.



Figure 6 A graph showing the temperature patterns in Ruacana, from www.worldweatheronline.com

4.2.2 Precipitation

In the proposed area, the highest rainfall is usually experienced in February which may reach +200 mm with average rainfall days of 14. The driest period runs for 4 months from June to September. The graph below shows the rainfall patterns in the area.





Figure 7 A graph showing rainfall patterns in Ruacana, from www.worldweatheronline.com

4.2.3 Wind

The windiest month (with the highest average wind speed) is October. The calmest month (with the lowest average wind speed) is March.





Figure 8 A graph showing windspeed patterns in Ruacana, from www.worldweatheronline.com

4.2.4 Humidity

The relative humidity during the least humid months of the year, i.e. September and November, is around 16-18% and the most humid month is January with 50-60% humidity. Namibia has a low humidity in general, and the lack of moisture in the air has a major impact on its climate by reducing cloud cover and rain and increases the rate of evaporation.





Figure 9 A graph showing the humidity patterns in Ruacana, from www.worldweatheronline.com

4.2 Air Quality

Activities around the exploration licence area mainly consist of tourism and small-scale livestock farming. Besides other exploration activities, there are no other industries or operating mines in the area or mines in the area. Probable sources of air pollution in the area are emissions and dust from vehicles travelling on gravel roads, dust generated by cattle grazing and wind erosion from the exposed areas.

 PM_{10} describes all particulate matter in the atmosphere with a diameter equal to or less than 10 µm and are generally emitted from motor vehicles (diesel engines) and burning of wood. $PM_{2.5}$ describes all particulate matter in the atmosphere with a diameter equal to or less than 2.5 µm and are mostly related to combustion. NO₂ and nitric oxide (NO) are formed simultaneously in combustion processes and other high temperature operations such as blast furnaces. Sources of SO₂ include fossil fuel



combustion from industry and power plants. SO₂ is emitted when coal or other biomass fuels are burnt for energy.

Data from accuweather.com shows that the air quality in the area is generally excellent with an air quality index of 15 AQI. The ground-level ozone (O₃) is about 15 μ g/m³ which is excellent. The fine particle matter levels (PM _{2.5}) are about 12 μ g/m. The particle matter (PM₁₀) is about 11 μ g/m³. The nitrogen dioxide (NO₂), carbon monoxide (CO), and sulphur dioxide (SO₂) levels in the area are recorded to be 1 μ g/m³.

4.3 Geology

4.3.1 Geological setting

The Kaoko Belt consists of four structural zones. From east to west they are the Eastern Kaoko Zone (EKZ), the Central Kaoko Zone (CKZ), the Western Kaoko Zone (WKZ) and the Southern Kaoko Zone (SKZ). The EPL area covers parts of the Eastern Kaoko Zone and the Central Kaoko Zone. The Eastern Kaoko Zone is bounded on the west by the Sesfontein Thrust and on the east by a major anticlinal ridge which marks the end of the Kaoko Belt and the beginning of the Northern Platform characterized by gently folded Otavi Group carbonates and overlying Mulden Group pelites. The Otavi Group is comprised of the Tsumeb, Abenab and Ombombo Subgroups. The Eastern Kaoko Zone comprises predominantly Nosib and Otavi Group metasediments and minor metamorphic basement rocks which are progressively less deformed as the platform margin in the east is approached. The Mulden Group, a pelitic molasse, overlies the Otavi Group carbonates and outcrops in the southwestern part of the Eastern Kaoko Zone. Lower greenschist metamorphic grade characterizes Damara age rocks of the EKZ. The Central Kaoko Zone is bounded on the east by the Sesfontein Thrust, on the west by the Purros Lineament, and is characterized by large, eastward verging folds of earlyProterozoic metamorphic basement and Damaran metasediments. Both the Central and Western Kaoko Zones are characterized by deep basin and slope facies overlying an Archean to Mesoproterozoic basement mosaic that experienced intense deformation at greenschist to upper-amphibolite metamorphic grade.





Figure 10 A geological map of the area


4.4 Hydrogeology and Water Resources



The area is underlain by rocks with little groundwater potential.



4.5 Flora

During dry periods most of the oshanas are covered by grass, while on the higher ground between the drainage channels, mopane scrub and various larger trees are found supported by the saline Kalahari sands. Much of the crop production in the region is supported by these higher lying areas (Mendelsohn, et al., 2002).

The southern reaches of the Cuvelai landscape flatten out into a salty grassland area underlain with a shallow saline sand layer. The vegetation is composed mainly of a variety of saline grasses, while trees and shrubs are largely absent as a result of the poor structure, shallow depth and high salinity of the soil (Mendelsohn, et al., 2002).

Grass is dependable on rainfall, which in-turn causes livestock and other animals to suffer during periods of minimal rainfall (Burke, 2003). The mineral exploration area, which is semi-arid, contains diverse vegetation species which include a number of species endemic to Namibia. Table 1 below lists the different plant species which are most likely to occur within the project area.

SCIENTIFIC NAME	COMMON NAME	STATUS IN NAMIBIA
Acacia erioloba	Camel thorn	Protected
Acacia mellifera	Black thorn	Secure
Acacia reficiens	False umbrella thorn	Secure
Acacia haematoxylon	Grey camel thorn	Protected
Acacia erubescens	Blue thorn	Secure
Acacia karroo	Sweet thorn	Secure
Acacia tortolis	Umbrella thorn	Secure
Acacia hereroensis	False hook-thorn	Secure
Commiphora tenuipetiolata	White-stem corkwood	Secure
Aloe littoralis		Protected
Ozoroa crassinervia	Namibian resin tree	Near endemic, protected
Boscia albitrunca	Shepherd's tree	Protected
Albizia anthelmintica	Worm-bark false-thorn	Protected
Ziziphus mucronata	Buffalo-thorn	Protected
Catophractes alexandri	Trumpet thorn	Secure
Combretum apiculatum	Red bush willow	Secure
Commiphora dinteri		Endemic
Commiphora glandulosa	Tall common corkwood	Secure
Commiphora glaucescens	Blue-leaved corkwood	Nearendemic
Croton gratissimus	Lavender fever-berry	Secure
Cyphostemma bainesii		Endemic, protected
Dichrostachys cinerea	Sickle bush	Secure

Table 1 A table showing plant species which are likely to occur in the area



Diospyros lycioides	Blue bush	Secure
Dombeya rotundifolia	Common wild pear	Endemic
Ehretia alba		Secure
Elephantorrhiza suffruticosa		Secure
Euclea pseudebenus	Ebony tree	Protected
Euclea undulata	Common guarri	Secure
Euphorbia guerichiana	Western woody milk bush	Secure
Euphorbia virosa		Secure
Ficus cordata	Namaqua fig	Protected
Ficus ilicina	Laurel fig	Secure
Ficus sycomorus	Common cluster fig	Protected
Grewia bicolor	White raisin	Secure
Grewia flava	Velvet raisin	Secure
Grewia flavescens	Sand paper raisin	Secure
Gymnosporia senegalensis	Red spike-thorn	Secure
Ipomoea adenioides		Secure
Lycium bosciifolium		Secure
Lycium cinereum		Secure
Lycium eenii		Secure
Lycium hirsutum		Secure
Lycium villosum		Secure
Maerua juncea		Secure
Maerua schinzii	Ringwood tree	Protected
Manuleopsis dinteri		Endemic
Melianthus comosus		Secure
Obetia carruthersiana		Near endemic
Pechuel-Loeschea leubnitziae		Secure
Sterculia africana	African star-chestnut	Protected
Tarchonanthus camphoratus		Secure
Tetragonia schenckii		Secure
Vernonia cinerascens		Secure
Searsia (Rhus) ciliata		Secure
Searsia (Rhus) lancea	Karree	Protected
Searsia (Rhus) marlothii		Secure

The density of vegetation in the vicinity of the mineral exploration site is sparse. Every effort will be made to protect the existing trees and schrubs, as these are very important to the ambience and visual appeal of the mineral exploration site. A vegetation expert will be consulted throughout the lifecycle of the mineral exploration program. The protected plant species in the project area are shown in the table below.



SCIENTIFIC NAME	COMMON NAME
Acacia erioloba	Camel thorn
Acacia haematoxylon	Grey camel thorn
Albizia anthelmintica	Worm-bark false-thorn
Boscia albitrunca	Shepherd's tree
Euclea pseudebenus	Ebony tree
Ficus cordata	Namaqua fig
Ficus sycomorus	Common cluster fig
Maerua schinzii	Ringwood tree
Ozoroa crassinervia	Namibian resin tree
Searsia (Rhus lancea)	Karree
Sterculia Africana	African star-chestnut

Table 2 Table of plant species which are protected under the Forestry Act and likely to occur in the area.

4.6 Fauna

4.6.1 Introduction

The information is based on a detailed literature review and a site visit which was carried out. The purpose of the Fauna literature review is to identify all potential amphibians, reptiles, and mammals expected on the project area and the surrounding farms in the vicinity of the mineral exploration area. The proposed mineral exploration area supports numerous faunal species but there are no species that are exclusive to the study area.

Larger types of animals such as zebras, giraffes, lions and elephants are rare in this area. There are no species which are exclusively endemic to the exploration area. Based on literature review, development of a mineral exploration project in the area will not have a negative impact on any of the species in the project area.

4.6.2 Amphibians

Based on the literature review, there are generally 14 types of amphibian species that occur in project area. Nine of these amphibian species occur abundantly, two occur rarely and six of them occur uncommonly. Griffin (1998) highlighted that amphibian species are declining throughout the world due to various factors such as climate



change and habitat destruction. There are approximately 4000 species of amphibians worldwide of which over 200 species are present in Southern Africa and 57 in Namibia (Griffin, 1998). However, this low figure may be due to the lack of detailed studies carried out on amphibians. The table below shows the different amphibian species that are likely to occur within the study area.

SCIENTIFIC NAME	COMMON NAME	STATUS	OCCURRENCE	REFERENCE
PLATANNAS				
Xenopus laevis	COMMON PLATANNA	SECURE	ABUNDANTLY	(Daudin, 1802)
TOADS				
Breviceps adspersus	BUSHVELD RAIN FROG	SECURE	ABUNDANTLY	Peters, 1882
Bufo dombensis	DOMBE DWARF TOAD	ENDEMIC & INADEQUETLY KNOWN	ABUNDANTLY	Bocage, 1895
Bufo poweri	MOTTLED TOAD	SECURE	ABUNDANTLY	Hewitt, 1935
FOSSORIAL FROGS	6			
Phrynomantis affinis	SPOTTED RUBBER FROG	AMBIGUOUS (RARE?)	RARELY	(Boulenger, 1901)
Phrynomantis bifasciatus	BANDED RUBBER FROG	SECURE	ABUNDANTLY	(Smith, 1848)
SAND FROGS, BUL	LFROGS, RIDGED FI	ROGS, CACOS, P	UDDLE FROGS et	tc.
Cacosternum boettgeri	COMMON CACO	SECURE	ABUNDANTLY	(Boulenger, 1882)
Hildebrandtia ornata	ORNATE FROG	SECURE	UNCOMMONLY	(Peters, 1878)
Phrynobatrachus mababiensis	MABABE PUDDLE FROG	SECURE	UNCOMMONLY	FitzSimons, 1932
Phrynobatrachus natalensis	SNORING PUDDLE FROG	SECURE	UNCOMMONLY	(A. Smith, 1849)
Pyxicephalus adspersus	GIANT BULLFROG	SECURE	ABUNDANTLY	Tschudi, 1838
Tomopterna krugerensis	KNOCKING SAND FROG	SECURE	RARELY	Passmore et al, 1975
Tomopterna tandyi	TANDY'S SAND FROG-	SECURE	ABUNDANTLY	Channing et al, 1996

Table 3 A list of amphibian species which may occur in the project area



TREE FROGS, REE	D FROGS & KASSIN	AS					
Kassina senegalensis	BUBBLING KASSINA	SECURE	ABUNDANTLY	(Dumèril 1841)	et	al,	

4.6.3 Mammals

Based on the literature review, there are generally about 68 species of mammals expected to occur within the immediate area. There are generally 25 species which rarely occur, 2 species that occur seasonally, 4 that occur occasionally, and 33 that occur abundantly within the project area. Considering the relative size of the mineral exploration area, the mammal fauna will not be affected by the mineral exploration activities of the proponent. Namibia is seemingly well endowed with mammal diversity with around 250 species know to be present within the country (Griffin, 1998). There are currently 14 mammal species which are considered to be endemic to Namibia, including 11 species of rodents and small carnivores which are not well known. Griffin (1998), points out that most of these endemic mammals are associated with the Namib and Escarpment with 60% of these appearing to be rock-dwelling species. The author, Griffin (1998) further highlights that the endemic mammal fauna is best characterized by the endemic rodent family *Petromuridae* (Dassie rat) and the rodent genera Gerbillurus and Petromyscus. The table below shows the mammal species which are likely to occur within the study area. A full list, of mammal species that are likely to occur within the area, is in the appendix section at the end.

SCIENTIFIC NAME	COMMON NAME
Acinonyx jubatus	Cheetah
Antidorcas marsupialis	Springbok
Atelerix frontalis angolae	Southern African Hedgehog
Canis mesomelas	Black-backed Jackal
Caracal caracal	Caracal
Crocuta crocuta	Spotted Hyena
Cynictis penicillata	Yellow Mongoose
Equus zebra hartmannae	Hartmann's Mountain Zebra
Felis nigripes	Black-footed Cat
Felis silvestris/lybica	African Wild Cat
Galerella sanguinea	Slender Mongoose
Genetta genetta	Small Spotted Genet
Ictonyx striatus	Striped Polecat
Lepus capensis	Cape Hare Secure

Table 4 Mammal species which are likely to occur within the project area.



Lepus saxatilis	Scrub Hare
Manis temminckii	Ground Pangolin
Mellivora capensis	Honey Badger/Ratel
Oreotragus oreotragus	Klipspringer
Oryx gazella	Gemsbok
Otocyon megalotis	Bat-eared Fox
Panthera pardus	Leopard
Parahyaena (Hyaena) brunnea	Brown Hyena
Phacochoerus africanus	Common Warthog
Proteles cristatus	Aardwolf
Raphicerus campestris	Steenbok
Suricata suricatta marjoriae	Suricate
Sylvicapra grimmia	Common Duiker
Tragelaphus strepsiceros	Greater Kudu
Vulpes chama	Cape Fox

4.6.4 Reptiles

The literature review showed that there are approximately 60 reptile species that are expected to occur in the site area. According to the Namibia Conservation Ordinance of 1975, there are four reptile species protected, namely:

Table 5 Protected reptile species in the project area

SCIENTIFIC NAME	COMMON NAME	STATUS
Psammobates Oculiferus	Kalahari Tent Tortoise	Protected
Python Natalis	Southern African Python	Protected
Geochelone Pardalis	Leopard Tortoise	Protected
Varanus Albigularis	Veld Leguaan	Protected

Griffin (1998) highlighted the presence of 261 species of reptiles which are present in Namibia. These reptiles make up 30% of the reptile species found on the continent. 55 species of Namibian Lizards are classified as endemic (Griffin, 1998). The author, Griffin (1998), describes that more than 60% of the reptiles found in Namibia are protected by the conservation Ordinance. Although mineral exploration activities do affect reptile habitat, the project will not have any significant impact on the reptile species within the proposed mineral exploration area. Namibia, with 129 species of lizards, has one of the continent's richest lizard Fauna. The table in the appendix shows the reptile species which are likely to occur within the vicinity of the mineral exploration area.



4.7 Avifauna (Birds)

Simmons et al (2003) points that although Namibia's Avifauna is comparatively sparse compared to the high rainfall equatorial areas elsewhere in Africa, approximately 658 species have already been recorded with a diverse unique group of arid endemics. There are approximately 650 species of birds that have been recorded in Namibia, although the country's avifauna is comparatively sparse compared to the high rainfall equatorial areas in Africa (Brown & Lawson, 1989). Brown et al (1989) mentions that 14 species of birds are endemic or near endemic to Namibia with the majority of Namibian endemics occurring in the Savannah of which ten species occur in a north-south belt of dry Savannah in Central Namibia. Simmons (2003) recorded 63 species of birds within the vicinity of the project area. 650 bird species are recorded in Namibia, of which 160 species are present in area, especially after good rains fall (Christian, 2005). These birds consist of raptors, chats, larks and karoid species. Christian (2005) recorded the presence of the following bird species in the vicinity of the area, which include:

SCIENTIFIC NAME	COMMON NAME
Agapornis roseicollis	Rosy-faced Lovebird
Eupodotis rueppellii	Rüppell's Korhaan
Lanioturdus torquatus	White-tailed Shrike
Parus carpi	Carp's Tit
Phoeniculus damarensis	Violet Wood-Hoopoe
Poicephalus rueppellii	Rüppell's Parrot
Pternistis hartlaubi	Hartlaub's Spurfowl
Tockus damarensis	Damara Hornbil
Tockus monteiri	Monteiro's Hornbill

Table 6 Bird scpecies which are likely to occur within the site area.

A full list of bird species within the area is shown in the appendix.

4.8 Archaeology and Heritage Sites

A separate archaeological study is attached to this report.



4.9 Socio-Economic Environment

4.9.1 Demographics of Ruacana

Ruacana is a town in Omusati Region, northern Namibia and the district capital of the Ruacana electoral constituency. It is located on the border with Angola on the river Kunene. The town is known for the picturesque Ruacana Falls nearby, and for the Ruacana Power Station.

The place normally receives an annual average rainfall of 426 millimetres (16.8 in), although in the 2010/2011 rainy season 960 millimetres (38 in) were measured.

The 600 hectares (1,500 acres) farm Etunda is situated near Ruacana. It is run as a government supported irrigation scheme and has been established in 1993. Half of the farm is commercial irrigation land, the other half is allocated to 82 small-scale farmers. Etunda cultivates maize, wheat, watermelons, bananas, and other produce

4.9.2 Social Economic Impact

Although a few people (including farmers) and animals might be negatively affected by dust and noise, the explorer will ensure that these aspects are properly mitigated. With the potential employment of 15 people, this means that 15 families will benefit from the project during the exploration phase. The project has great potential to improve livelihoods and contribute to sustainable development within the surrounding community. Community meetings will be held from time to time by the proponent wherever possible, with the purpose of effectively communicating with the local community and to avoid any unexpected social impacts.

5. Assessment of Impacts

The purpose of this assessments of impacts section is to identify and consider the most pertinent environmental impacts and to provide possible mitigation measures that are expected from the mineral exploration activities on EPL 8314. Two different phases are associated with the proposed development. Firstly, the target generation (mapping and sampling) phase, and secondly the drilling phase are being covered by this assessment. Should the mineral exploration activities cease in the future, an EIA

will need to be conducted to deal with the associated changes to environment. Mitigation measures for the identified impacts are also provided in this Section.

The following assessment methodology was used to examine each impact identified:

Table 7	Assessment	methodology	used to	o examine	the	impacts	identified
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Evaluation Criteria	Symbol	Significance of Rating
Nature of impact:	P or N	Effect the proposed activity would have on the affected environment which is positive (P) or negative (N)
Extent of impact:	0	On-Site (the site and it's immediate surrounds)
	L	Local (Mineral exploration Area)
	R	Regional (Omusati Region)
	Ν	National (Namibia)
	I	International
Duration of impact:	SD	Short Duration (0 to 5 years)
	MD	Medium Duration (5 to 15 years)
	LD	Long Duration (lifetime of the development)
Intensity of impact:	L	Low intensity where the natural, cultural and social functions and processes are not affected.
	Μ	Medium intensity where the affected environment is altered but natural, cultural and social functions and processes can continue.
	Н	High intensity where the affected environment is altered to the extent that natural, cultural and social functions and processes will temporarily or permanently cease.
Probability of impact:	LP	Low probability is when the possibility of the impact occurring is low.
	Р	Probable is when there is a distinct possibility that it will occur.
	HP	Highly probable is when the impact is most likely to occur.
	D	Definite where the impact will occur.
Significance of Impact: Further subdivided into impacts with mitigation (MM) measures and impacts with no mitigation measures (NMM).	L	Low Significance is when natural, cultural, social and economic functions and processes are not affected. If the impacts are adverse, mitigation is either easily achieved or little will be required, or both. If impacts are beneficial, alternative means of achieving this benefit are likely to be easier, cheaper, more effective and less time=consuming
	Μ	Medium Significance is when the affected environment is altered but natural, cultural, social and economic functions and processes can continue. An impact exists but is not substantial in relation to other impacts that might take effect within the bounds of those that could occur. In the case of beneficial impacts, other means of achieving this benefit are about equal in time, cost and effort.



Н	High Significance is when the affected environment is altered to the extent that natural, cultural, social and economic functions and processes will temporarily or permanently cease. If impacts are adverse, there is no possible mitigation that could offset the impact, or mitigation is difficult, expensive, time consuming or a combination of these. In the case of beneficial impacts, the impact is of a Substantial order within the bounds of impacts that could occur.

5.1. Overall socio-economic benefits and issues

5.1.1. Socio-economic benefits

With the potential employment of 15 people, this means that 15 families will benefit from the project during the exploration phase. The project has great potential to improve livelihoods and contribute to sustainable development within the surrounding community. Community meetings will be held from time to time by the proponent wherever possible, with the purpose of effectively communicating with the local community and to avoid any unexpected social impacts.

5.1.1.1. Potential Direct Benefits

Direct capital investment: The mineral exploration project will require a significant capital investment of at least N\$ 10 million. This will be used for mapping, sampling and drilling.

Stimulation of skills transfer: Due to the nature of mineral exploration projects, the proponent will implement ad-hoc training programme for some of its staff members. Training programmes will be well structured and staff members will permanently benefit from these training programmes.

Job creation: With the potential employment of 15 people, this means that 10 families will benefit from the project during the on-going phase. The project has a great potential to improve livelihoods and contribute to sustainable development within the surrounding community.

5.1.1.2. Potential Indirect Benefits

• The data generated from the exploration programme will be made available to the Ministry of Mines and Energy for future research purposes.



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- General enhancement of the health conditions and quality of life for a few people in the surrounding settlements.
- Of significance is the prospect of diversification of the surrounding economy, which is presently mainly focussed on small-scale farming and small-scale mining of semi-precious stones.

5.1.1.3. General socio-economic concerns

Notwithstanding the above benefits there are a few concerns that could reduce or counteract the above benefits related to the project, as follows:

- As the movement of staff and contractors to and from the area increases, the risk of spread of HIV/AIDS increases.
- Increased influx of people to the area as people come in search of job opportunities during the target generation and drilling phase of the mineral exploration project; and
- Increased informal settlement and associated problems.

Table 8 Impact evaluation for socio-economy

Identified	Signif	icance	Duration	Extent	Intensity	Probability
Impact	NMM	MM				
Increased spread of HIV/AIDS	М	L	LD	N	Μ	LP
Increased influx of people to the area	L	L	SD	L	L	Р
Increased informal settlement in the area	М	L	MD	L	L	LP

5.2. Mineral Exploration phases and associated issues

5.2.1. Mapping and Geochemical Sampling Phase of the Project

The following potential effects on the environment during the target generation phase of the mineral exploration project have been identified:

5.2.1.1. Dust

Dust may be generated during this phase and might be aggravated during the winter months when strong winds occur. Dust will be generated by the vehicles moving in the area. Fall out dust settling on vegetation is likely to cause local disruptions in herbivorous and predatory complexes and should be minimised as far as possible.



5.2.1.2. Noise

Noise will most likely be generated by vehicles during the target generation phase. It is recommended that vehicle movement be limited to normal daytime hours to allow nocturnal animals to roam freely at night.

5.2.1.3. Safety and Security

During mapping and sampling, small tools and equipment will be used on site. This increases the possibility of injuries and the responsible manager must ensure that all staff members are briefed about the potential risks of injuries on site. The manager is further advised to ensure that adequate emergency facilities, including first aid kits, are available on site. All Health and Safety standards specified in the Labour Act should be complied with.

Should a camp be necessary at a later stage, it should be in such a way that it does not pose a risk to the community members and wildlife that roam the area.

5.2.1.4. Visual

The proposed exploration area is situated more than 1 km from any main road. As such, any visual impact that might be caused by the exploration team are minimal. In some parts of the area, the topography of the mineral exploration site is slightly elevated.

Identified	Signif	icance	Duration	Extent	Intensity	Probability
Impact	NMM	ММ				
Dust	L	L	SD	L	L	Р
Noise	М	L	SD	L	М	D
Safety & Security	L	L	SD	0	L	Р
Visual	L	L	MD	0	L	LP

Table 9 Impact evaluation for the target generation phase of the project

5.2.2. Drilling Phase of the Project

During the operation phase of the project, a few holes will be drilled into the orebody. To conveniently refuelling company vehicles without driving long distances, a small portable fuel storage tank will be brought on site.



5.2.2.1. Air Quality

In terms of air quality, emissions will be given off by 4x4 vehicles and the drill rig but not to an extent that warrants concern. Dust will also be produced by the drill rig and the movement of vehicles in the area.

5.2.2.2. Fire and Explosion Hazard

Hydrocarbons are volatile under certain conditions and their vapours in specific concentrations are flammable. If precautions are not taken to prevent their ignition, fire and subsequent safety risks may arise.

All fuel storage and handling facilities in Namibia must however comply with strict safety distances as prescribed by SANS 10089. SANS 10089 is adopted by the Ministry of Mines and Energy as the national standard.

It must further be assured that enough water is available for fire firefighting purposes. In addition to this, all personnel must be sensitised about responsible fire protection measures and good housekeeping such as the removal of flammable materials including rubbish, dry vegetation, and hydrocarbon-soaked soil from the vicinity of the exploration area. Regular inspections should be carried out to inspect and test firefighting equipment and pollution control materials at the drilling site.

All fire precautions and fire control at the site must be in accordance with SANS 10089-1:1999, or better. A holistic fire protection and prevention plan is needed.

Experience has shown that the best chance to rapidly put out a major fire, is in the first 5 minutes. It is important to recognise that a responsive fire prevention plan does not solely include the availability of firefighting equipment, but more importantly, it involves premeditated measures and activities to timeously prevent, curb and avoid conditions that may result in fires. An integrated fire prevention plan should be drafted before drilling.

5.2.2.3. Generation of Waste

Solid waste be generated from contractors, staff members and other visitors to the area. Care should be taken when handling waste material.



The types of waste that could be generated during operation include hazardous industrial waste (e.g. lubricants), general industrial waste (e.g. scrap material), and domestic waste (e.g. packaging). The waste will be temporarily handled and stored on site before being removed for final disposal at permitted waste disposal facilities. A registered Waste Management Company would be contracted to remove all hazardous waste from the exploration site. Ablution facilities will use chemical toilets and/or sealed septic tanks and the sewerage taken to the Ruacana periodically. No waste will be discharged on site.

5.2.2.4. Health and Safety

The drilling programme operations can cause serious health and safety risks to workers on site. Occupational exposures are normally related to the dermal contact with fuels and inhalation of fuel vapours during handling of such products. For this reason, adequate measures must be brought in place to ensure safety of staff on site, and includes:

- Proper training of operators;
- First aid treatment;
- Medical assistance;
- Emergency treatment;
- Prevention of inhalation of fumes;
- Protective clothing, footwear, gloves and belts; safety goggles and shields;
- Manuals and training regarding the correct handling of materials and packages should be in place and updated as new or updated material safety data sheets becomes available;
- And Monitoring should be carried out on a regular basis, including accident reports.

5.2.2.5. Fauna

Mineral exploration activities may have minor disturbances on the habitat of a few species but no significant impacts on the animals are expected. The proponent shall ensure that no animal shall be captured, killed or harmed by any of the employees in any way. Wildlife poaching will strongly be avoided as this is an offence and anyone



caught infringing in this regard will face suspension from the project and will be liable for prosecution.

5.2.2.6. Vegetation

The natural vegetation is seemingly undisturbed in the project area except for grasses, which have been grazed by livestock and wild animals. Some vegetation species in the area may be adversely impacted by the project. The type of vegetation that might be affected by the project are:

- Bushes
- Ephemeral grasses
- Small trees

Some of the sensitive vegetation types in the area include:

- Shallow drainage line vegetation
- Scrublands surrounding the mineral exploration area

Certain species regarded as particularly important for conservation may yet be identified and made known via an Addendum to this report. If particularly important species are found, they will be located by GPS and their locations communicated to the Ministry of Environment and Tourism. Such locations will then be demarcated and completely avoided.

5.2.2.7. Avifauna

Birds or Nest sites will not be disturbed by any employee, tourist or contractor. Should the employees observe any bird nesting sites for vultures, they will be reported to the Ministry of Environment and Tourism and the site will be avoided.

5.2.2.8. Alien Invasive Plants

Disturbance to the natural environment often encourages the establishment of alien invasive weed species. Some of the plant species that could become invasive in the area are listed below:

- Prosopis glandulosa
- Lantana camara



- Cyperus esculentus
- Opuntia imbricate
- Cereus jamacara
- Melia azedarach

There are numerous ways in which invasive species can be introduced deliberately or unintentionally.

5.2.2.9 Heritage Impacts

Although no archaeological sites have been identified yet in the project area, appropriate measures will be undertaken upon discovering any new archaeological sites. All archaeological remains are protected under the National Heritage Act (2004) and will not be destroyed, disturbed or removed. The Act also requires that any archaeological finds be reported to the Heritage Council Windhoek.

Identified	Signif	icance	Duration	Extent	Intensity	Probability
Impact	NMM	MM				
Air Quality	М	L	LD	L	Μ	HP
Fire & Explosion Hazard	Н	М	SD	0	М	LP
Generation of waste	М	L	LD	0	L	D
Health and Safety	Н	М	MD	N	L	Р
Fauna	М	L	MD	L	Μ	D
Vegetation	М	L	MD	L	М	D
Avifauna	М	L	MD	L	Μ	LP
Alien Invasive Plants	Μ	L	MD	L	Μ	Р
Heritage	Μ	L	LD	0	Н	LP

Table 10 Impact evaluation for the operational phase of the project

5.2.2.10 Groundwater Impacts

Mineral exploration activities may affect the availability of water and the quality thereof. Exploration works may affect the water availability for deep rooted trees in riverbeds. Surface water for animals may be affected by mineral exploration activities. In rare instances, the quality of the groundwater for water consumption may be compromised by mineral exploration activities.



6. Environmental Management Plan

6.1 Overview

This Environmental Management Plan is intended to give effect to the recommendations of the Environmental Impact Assessment. To achieve this goal, it is essential that all personnel involved on the mineral exploration are fully aware of the environmental issues and the means to avoid or minimize the potential impacts of activities on site. The proposed mineral exploration activities are summarized in Section 3 of the scoping report above. Legal and policy requirements are well known and understood by the proponent, its employees and contractors and will be strictly enforced by its management team. A general description of the environment is contained in Section 4, and more site-specific information on particularly sensitive areas is contained in Section 4 as well. Issues and concerns identified in the EIA will form a set of environmental specifications that will be implemented on site. It is the intention that these environmental specifications should form the basis for an agreement between the proponent and the Ministry of Environment and Tourism. By virtue of that agreement, these specifications will become binding on the proponent.

Environmental management requires a joint effort on the part of all parties involved. The proponent has assigned certain roles to ensure that all players fulfil their responsibilities in this regard.

6.2 Environmental Management Principles

The proponent will ensure that all parties involved in the project uphold the following broad aims:

1. All persons will be required to conduct all their activities in a manner that is environmentally and socially responsible. This includes all consultants,



contractors, and sub-contractors, transport drivers, guests and anyone entering the exploration areas in connection with the mineral exploration project.

- 2. Health, Safety and Social Well Being
- Safeguard the health and safety of project personnel and the public against potential impacts of the project. This includes issues of road safety, precautions against natural dangers on site, and radiation hazards; and,
- Promote good relationships with the local authorities and their staff.
- 3. Biophysical Environment
- Wise use and conservation of environmental resources, giving due consideration to the use of resources by present and future generations.
- Prevent or minimise environmental impacts.
- Prevent air, water, and soil pollution, Biodiversity conservation and Due respect for the purpose and sanctity of the area.

To achieve these aims, the following principles need to be upheld.

A. Commitment and Accountability:

The proponent's senior executives and line managers will be held responsible and accountable for:

Health and safety of site personnel while on duty, including while travelling to and from site in company vehicles and environmental impacts caused by mineral exploration activities or by personnel engaged in the mineral exploration activities, including any recreational activities carried out by personnel in the area.

B. Competence

The proponent will ensure a competent work force through appropriate selection, training, and awareness in all safety, health and environmental matters.

C. Risk Assessment, Prevention and Control

Identify, assess and prioritise potential environmental risks. Prevent or minimize priority risks through careful planning and design, allocation of financial resources, management and workplace procedures. Intervene promptly in the event of adverse impacts arising.

D. Performance and Evaluation

Set appropriate objectives and performance indicators. Comply with all laws, regulations, policies and the environmental specifications. Implement regular monitoring and reporting of compliance with these requirements.

E. Stakeholder Consultation

Create and maintain opportunities for constructive consultations with employees, authorities, other interested or affected parties. Seek to achieve open exchange of information and mutual understanding in matters of common concern.

F. Continual Improvement

Through continual evaluation, feedbacks, and innovation, seek to improve performance about social health and well-being and environmental management throughout the lifespan of the mineral exploration project.

G. Financial Provisions for Mineral exploration

In line with Namibia's environmental rehabilitation policy, the proponent will make the necessary financial provision for compliance with the EMP.

6.3 Impacts on the Bio-physical Environment

6.3.1 Impacts on Archaeological Sites

The **nature of impact** is outlined below:

- Potential damage to archaeological sites as a result of vehicle tracks, footprints and actions of contractors, employees and visitors of the mineral exploration site.
- As the mitigation measures below are fully enforced, any impact will be significantly reduced compared to with present situation.



Mitigation Measures to be enforced:

- Buffer zones will be created around the sites.
- Adhere to practical guidelines provided by an archaeologist to reduce the archaeological impact of mineral exploration activities.
- All archaeological sites to be identified and protected before further exploration commences.
- Notices/information boards will be placed on sites.
- Training employees regarding the protection of these sites.

Methods for monitoring:

• An archaeologist will inspect any identified archaeological sites before commencing with the mineral exploration activities.

6.3.2 Impacts on Fauna

The nature of impact is outlined below:

- Movement of vehicles in and out of the site.
- Noise produced by moving earth-moving equipment.

Mitigation Measures to be enforced:

- Some habitat areas such as trees of the riverbeds and tunnels outcrops will be avoided wherever possible.
- A fauna survey will be conducted to determine the effect of fragmented habitat on game species should the need arise.
- No animals shall be killed, captured or harmed in any way.
- No foodstuff will be left lying around as these will attract animals which might result in human-animal conflict.
- Care will be taken to ensure that no litter is lying around as these may end up being ingested by wild animals



• No animals shall be fed. This allows animals to lose their natural fear of humans, which may result in dangerous encounters.

Methods for monitoring:

• Regular monitoring of any unusual signs of animal habitat.

6.3.3 Impacts on Avifauna

Birds or Nest sites will not be disturbed by any employee, visitor or contractor.

6.3.4 Impact on Vegetation

The nature of impact is outlined below:

- Negative impacts on plants from trenching, compacting and removal of plants.
- Negative Impact from movement of vehicles and the movement of people around the site.
- Negative impacts from land-clearing and mineral exploration operations.

Mitigation Measures to be enforced:

- Environmental considerations will always be adhered to before clearing roads, trenching and excavating.
- Paths and roads will be aligned to avoid root zones. Permeable materials will be used wherever possible.
- The movement of vehicles in riverbeds, rocky outcrops and vegetation sensitive areas will be avoided.
- The movement of vehicles will be restricted to certain tracks only.
- Areas with species of concern will be avoided.
- Ministry of Environment and Tourism will be informed of any protected species which will be transplanted in consultation with MET.

6.3.5 Impacts of Alien invasive Plants

The nature of impact is outlined below:



- Plant or seed material may adhere to car tyres or animals
- Seed or plant material may be imported to site in building materials if the source is contaminated.
- Seeds may blow from debris removed at sites.

Mitigation Measures to be enforced:

- The explorer will ensure that debris is properly disposed of.
- Vehicle tyre inspections can be carried out although this may not be a practical mitigation measure.
- Eradicating alien plants by using an Area Management Plan

Methods for monitoring:

• Regular monitoring of any unusual signs of alien species.

6.3.6 Impacts on Socio-Economic

The nature of impact is outlined below:

- Impact from loss of grazing for domestic livestock in "exclusive use zone"
- Impacts on cultural and spiritual values.
- Demographic factors: Attraction of additional population that cannot benefit from the project.
- Perception of Health and Safety risks associated with mineral exploration.

Mitigation Measures to be enforced:

- The population change can be mitigated by employing people from the local community and encouraging the contractors to employ local individuals.
- The perception of risks will be mitigated by putting up safety signs wherever possible and ensuring that all employees and visitors to the site undergo a safety induction course.

Methods for monitoring:



• Public meetings will be held by the proponent whenever necessary.

6.3.7 Visual Impacts

The nature of impact is outlined below:

• Tracks and damaged vegetation caused by the mineral exploration vehicles.

Mitigation Measures to be enforced:

• Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating.

Methods for monitoring:

• Employees will be trained on the importance of minimising visual impacts.

6.3.8 Use of Natural Resources

Water and electricity are very scarce in Namibia. During the exploration, best international practices will be considered as a minimum standard for operation. The bulk of the power supply to the exploration site will be sourced from the proponent's own generator. The proponent will maximise water recycling opportunities wherever possible.

6.3.9 Generation of Solid Waste

Correct management of solid waste will involve a commitment to the full waste life cycle by all the employees and contractors of the site. The Proponent's goal is to avoid the generation of solid waste in the first place and if not possible, to minimise the volumes generated by looking at technologies that promote longevity and recycling of products. Ideally, the proponent should transport solid waste to a registered site for disposal. However, it is not certain if such facilities are available in the area or if they have the capacity to handle large increases in volume. Appropriate on-site facilities will be designed to store large volumes of waste.

6.3.10 Noise

The nature of impact is outlined below:

• Movement of people, and vehicles.



• Noise may be generated from an airborne geophysical survey which may be carried out at a later stage.

Mitigation Measures to be enforced:

• Disturbance to fauna that roam the area will be minimized by training the employees on ways to minimise noise.

6.3.11 Air Quality

The **nature of impact** is outlined below:

• Dust from movement of people, vehicles and earth-moving machinery. Emissions from vehicles and drill rigs as well.

Mitigation Measures to be enforced:

- All staff on should be equipped with dosimeters that measure exposure levels to radiation.
- All staff must be made aware of the health risk and obliged to wear dust masks.

6.4 Summary of Environmental Management Plan during construction, operation and decommissioning phases

	Construction/Initial Phase		
Environmental Impact	Proposed mitigation measures	Responsibility	Monitoring plan
Air pollution	 Control speed and operation of construction vehicles. Prohibit idling of vehicles. Maintenance of vehicles and equipment. Sensitize field exploration workers and contractors. Workers should be provided with dust masks if working in sensitive areas. 	 Contractor Site Manager 	 Amount of dust produced. Level of Landscaping carried out.
Noise pollution	 Maintain equipment and vehicles. Field work should only be carried out only during daytime i.e. 08h00 to 17h00. Workers should wear earmuffs if working in noisy section. Management to ensure that noise is kept within reasonable levels. 	ContractorManagement	Amount of noise



Solid waste	 Any debris should be collected by a waste collection company If trenches are dug, waste should be re-used or backfilled. The site should have waste receptacles with bulk storage facilities at convenient points to prevent littering during exploration. 	Management	Presence of well- Maintained receptacles and central collection point.
Oil leaks and spills	 Vehicles and equipment should be well maintained to prevent oil leaks. Contractor should have a designated area where maintenance is carried out and that is protected from rainwater. All oil products should be handled carefully. 	Contractor	No oil spills and leaks on the site
First aid	 A well-stocked first aid kit shall be maintained by qualified personnel 	 Management 	Contents of the first aid kit.
Visual	 Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating. 	Management	• Employees will be trained on the importance of minimising visual impacts.
Archaeological Sites	 Buffer zones will be created around the sites. Adhere to practical guidelines provided by an archaeologist to reduce the archaeological impact of mineral exploration activities. All archaeological sites to be identified and protected before further exploration commences. 	Management	Register of all archaeological sites identified.
Occupation al Health and Safety	 Provide Personal Protective Equipment Train workers on personal safety and how to handle equipment and machines. A well-stocked first aid kit shall be maintained by qualified personnel. Report any accidents / incidences and treat and Compensate affected workers. Provide sufficient and suitable sanitary conveniences which should be kept clean. 	ContractorManagement	 Workers using Protective Equipment. Presence of Well stocked First Aid Box. Clean sanitary facilities.
Fauna	 Some habitat areas such as trees of the riverbeds and tunnels outcrops will be avoided wherever possible. A fauna survey will be conducted to determine the effect of fragmented habitat on game species should the need arise. No animals shall be killed, captured or harmed in any way. No foodstuff will be left lying around as these will attract animals which might result in humananimal conflict. 	Management	 Regular monitoring of any unusual signs of animal habitat.
Alien Invasive Plants	 The explorer will ensure that debris is properly disposed off. Vehicle tyre inspections can be carried out although this may not be a practical mitigation measure. Eradicating alien plants by using an Area Management Plan 	ManagementContractor	 Regular monitoring of any unusual signs of alien species.
Loss of vegetation	 Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating. Paths and roads will be aligned to avoid root zones. Permeable materials will be used wherever possible. 	ContractorManagement	 Warning signs on site restored vegetation



	 The movement of vehicles in riverbeds, rocky outcrops and vegetation sensitive areas will be avoided. The movement of vehicles will be restricted to certain tracks only. 						
Operational Phase							
Environmental/ Social Impact	Proposed mitigation measures	Responsibility	Monitoring plan				
Noise pollution	 Maintain vehicles and drilling equipment. Exploration drilling should be carried out only during daytime. Workers to wear earmuffs if working in noisy section Management to ensure that noise is kept within reasonable levels. 	ContractorManagement	Amount of noise				
Visual	 Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating. 	Management	• Employees will be trained on the importance of minimising visual impacts.				
Fauna	 Some habitat areas such as trees of the riverbeds and tunnels outcrops will be avoided wherever possible. A fauna survey will be conducted to determine the effect of fragmented habitat on game species should the need arise. No animals shall be killed, captured or harmed in any way. No foodstuff will be left lying around as these will attract animals which might result in humananimal conflict. 	Management	 Regular monitoring of any unusual signs of animal habitat. 				
Alien Invasive Plants	 The explorer will ensure that debris is properly disposed of. Vehicle tyre inspections can be carried out although this may not be a practical mitigation measure. Eradicating alien plants by using an Area Management Plan 	 Management Contractor 	 Regular monitoring of any unusual signs of alien species. 				
Loss of vegetation	 Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating. Paths and roads will be aligned to avoid root zones. Permeable materials will be used wherever possible. The movement of vehicles in riverbeds, rocky outcrops and vegetation sensitive areas will be avoided. The movement of vehicles will be restricted to certain tracks only. 	 Contractor Management 	 Warning signs on site restored vegetation 				
Solid waste	 Minimize solid waste generated on site. Recycle waste especially waste from trenching. Debris should be collected by waste collection company. Excavation waste should be re-used or backfilled. 	 Contractor Management 	 Amount of waste on Site Presence of well- Maintained receptacles and central collection point. 				



Oil leaks and spills Archaeological Sites	 Machinery should be well maintained to prevent oil leaks. Contractor should have a designated area where maintenance is carried out and that is protected from rainwater. All oil products should be stored in a site store and handled carefully. Buffer zones will be created around the sites. Adhere to practical guidelines provided by an archaeologist to reduce the archaeological impact of mineral exploration activities. All archaeological sites to be identified and protected before further exploration commences. 	Contractor Management	 No oil spills and leaks on the site. Update Register of all archaeologic al sites identified.
First aid	A well-stocked first aid kit shall be maintained by qualified personnel	Management	 Contents of the first aid kit.
Fire preparedness Environment Health and Safety	 Firefighting drills carried out regularly. Firefighting emergency response plan. Ensure all firefighting equipment are regularly maintained, serviced and inspected. Fire hazard signs and directions to emergency exit, route to follow and assembly point in case of any fire incidence. Train workers on personal safety and disaster preparedness. A well-stocked first aid kit shall be maintained by qualified personnel. Report any accidents / incidences and treat and compensate affected workers. Provide sufficient and suitable sanitary conveniences which should be kept clean. Conduct Annual Health and Safety Audits. 	Management Management	 Number of fire drills carried. Proof of inspection on firefighting equipment. Fire Signs put up in strategic places. Availability of firefighting equipment. Provide sanitary facilities. Copies of Annual Audit
	Decommissioning Phase		
Environmental/ Social Impact	Proposed mitigation measures	Responsibility	Monitoring plan/indicator
Noise & Air pollution	 Maintain plant equipment. Decommissioning works to be carried out only during daytime. Workers working in noisy section to wear earmuffs. Workers should be provided with dust masks. 	 Contractor Management 	Amount of noise
Disturbed Physical environment	 Undertake a complete environmental restoration programme and introducing appropriate vegetation 	Management	



Solid waste	 Solid waste should be collected by a contracted waste collection company Excavation waste should be re-used or backfilled. 	ContractorManagement	Amount of waste on Site. Presence of well-
			maintained receptacles and central collection point.
Occupational	 Provide Personal Protective Equipment. 	 Contractor 	 Workers using
Health and	 Train workers on personal safety and how to 		Protective
Safety	handle equipment and machines.		Equipment.
	 A well-stocked first aid kit shall be maintained by qualified personnel. 		 Presence of a First Aid Box.
	 Demarcate area under decommissioning. 		

6.5 Monitoring, Auditing and Reporting

6.5.1 Inspections and Audits

During the life of the project, performance against the EMP commitments will need to be monitored, and corrective action taken where necessary, in order to ensure compliance with the EMP and relevant enviro-legal requirements.

6.5.1.1 Internal Inspections/Audits

The following internal compliance monitoring programme will be implemented:

- 1. Project kick-off and close-out audits will be conducted on all contractors. This applies to all phases, including drilling contract work during operations:
 - Prior to a contractor beginning work, an audit will be conducted by the applicable phase site manager to ensure that the EMP commitments are included in Contractors' standard operating procedures (SOPs) and method statements.
 - Following completion of a Contractors work, a final close-out audit of the contractor's performance against the EMP commitments will be conducted by the applicable phase site manager.
- 2. Monthly internal EMP performance audits will be conducted during the construction/initial and decommissioning phases.
- 3. Ad hoc internal inspections can be implemented by the applicable phase exploration manager at his/her discretion, or in follow-up to recommendations from previous inspection/audit findings.



6.5.1.2 External Audits

- At the close of each project phase, and annually during the operational phase, an independently conducted audit of EMP performance will be conducted.
- Specialist monitoring/auditing may be required where specialist expertise are required or in order to respond to grievances or authorities directives.
- Officials from the DEA may at any time conduct a compliance and/or performance inspection of mineral exploration operations. The proponent will be provided with a written report of the findings of the inspection. These audits assist with the continual improvement of the exploration project and the proponent will use such feedback to help improve its overall operations.

6.5.1.3 Documentation

Records of all inspections/audits and monitoring reports will be kept in line with legislation. Actions will be issued on inspection/audit findings. These will be tracked and closed out.

6.5.1.4 Reporting

Environmental compliance reports will be submitted to the Ministry of Environment and Tourism on a bi-annual basis.

6.5.2 Environmental Management System Framework

In order implement Environmental Management Practices, an Environmental Management System (EMS) will be established and implemented by the proponent and their Contractors. This subchapter establishes the framework for the compilation of a project EMS. The applicable exploration manager will maintain a paper based and/or electronic system of all environmental management documentation. These will be divided into the following main categories:

6.5.2.1 Policy and Performance Standards

A draft environmental policy and associated objective, goals and commitments has been included in the EMP. The mineral explorer may adapt these as necessary.



6.5.2.2 Enviro-Legal Documentation

A copy of the approved environmental assessment and EMP documentation will always be available by the proponent. Copies of the Environment Clearance Certificate and all other associated authorisations and permits will also be kept with the exploration team. In addition, a register of the legislation and regulations applicable to the project will be maintained and updated as necessary.

6.5.2.3 Impact Aspect Register

A register of all project aspects that could impact the environment, including an assessment of these impacts and relevant management measures, is to be maintained. This Draft EMP identifies the foreseeable project aspects and related potential impacts of the proposed project, and as such forms the basis for the Aspect-Impact Register; with the Project Activity. It is however noted that during the life of the project additional project aspects and related impacts may arise which would need to be captured in the Aspect-Impact Register. In this regard, the impact identification principles set forth in the scoping report can be used to update the Register. This method can be modified as required by the applicable exploration manager as necessary during the life of the project.

6.5.2.3 Procedures and Method Statements

In order to affect the commitments contained in this EMP, procedures and method statements will be drafted by the relevant responsible mineral exploration staff and Contractors. These include, but may not be limited:

- Standard operating procedures for environmental action plan and management programme execution.
- Incident and emergency response procedures.
- Auditing, monitoring and reporting procedures, and
- Method statements for EMP compliance for ad hoc activities not directly addressed in the EMP action plans.

All procedures are to be version controlled and signed off by the applicable exploration manager. In addition, knowledge of procedures by relevant staff responsible for the execution thereof must be demonstrable and training records maintained.



6.5.2.4 Register of Roles and Responsibilities

During project planning and risk assessments, relevant roles and responsibilities will be determined. These must be documented in a register of all environmental commitment roles and responsibilities. The register is to include relevant contact details and must be updated as required.

6.5.2.5 Site Map

An up to date map of the exploration site indicating all project activities is to be maintained. In addition to the project layout, the following detail must be depicted:

- Materials handling and storage;
- Waste management areas (collection, storage, transfer, etc.);
- Sensitive areas;
- Incident and emergency equipment locations; and Location of responsible parties.

6.5.2.6 Environmental Management Schedule

A schedule of environmental management actions is to be maintained by the applicable phase site managers and/or relevant Contractors. A master schedule of all such activities is to be kept up to date by the exploration manager. Scheduled environmental actions can include, but are not limited to:

- Environmental risk assessment;
- Environmental management meetings;
- Soil handling, management and rehabilitation;
- Waste collection
- Incident and emergency response equipment evaluations and maintenance
- Environmental training;
- Stakeholder engagement; Environmental inspections; and
- Auditing, monitoring and reporting.



6.5.2.7 Change Management

The EMS must have a procedure in place for change management. In this regard, updating and revision of environmental documentation, of procedures and method statements, actions plants etc. will be conducted as necessary in order to account for the following scenarios:

- Changes to standard operating procedures (SOPs);
- Changes in scope;
- Ad hoc actions;
- Changes in project phase; and
- Changes in responsibilities or roles

All documentation will be version controlled and require sign off by the applicable phase site managers.

6.6 Closure Plan

The closure vision for the proposed project is to establish a safe, stable and nonpolluting post-prospecting landscape that can facilitate integrated, self-sustaining and value generating opportunities, thereby leave a lasting positive legacy. The aim of the closure plan is to:

- Creating a safe, physically stable rehabilitated landscape that limits long-term erosion potential and environmental degradation.
- Sustaining long term catchment yield and water quality.
- Focusing on establishing a functional post-prospecting landscape that enables self-sustaining agricultural practices where possible.
- To encourage, where appropriate, the re-instatement of terrestrial and aquatic wetland biodiversity

6.6.1 Alternatives Considered

Considering that this is an exploration project, the proposed project is not complex, and the risks associated with prospecting are understood and can be mitigated at



closure. Alternative options for closure are limited. There are only two options that have been considered as activity alternatives for the closure plan:

- **Preferred Alternative:** Closure or Backfill of boreholes with overburden removed during drilling.
- Alternative 2: To Leave boreholes open, in-order to allow for groundwater recharge by surface run-off.

6.6.2 Preferred Alternative: Rehabilitation/ Backfill of boreholes

Rehabilitation is the restoration of a disturbed area that has been degraded as a result of activities such as mining, road construction or waste disposal, to a land use in conformity with the original land use before the activity started. This also includes aesthetical considerations, so that a disturbed area will not be visibly different to the natural environment. This also involves maintaining physical, chemical and biological ecosystem processes in degraded environments, hence the preferred option of backfilling the boreholes with the overburden removed during development and cover with growth medium to establish vegetation. This option has several advantages as discussed below:

Advantages:

- The site will be aesthetically acceptable;
- The site will blend in with the environment;
- The site will be a suitable habitat for fauna and flora again.
- The site will be safe and pollution free;
- Revegetating the site will ensure that the site in non-erodible.

Opting for alternative 1, which is to leave boreholes without backfilling poses a risk in that, these boreholes may fill in with water, which may become attractive to wildlife and communities leading to drowning and the risk of being trapped in the declines. To mitigate these risks, it is necessary to backfill. Treatment technologies should be used to prevent decanting.



6.6.3 Closure Assumptions

This closure plan has been developed based on limited available information including environmental data. Some of the information currently available may need to be supplemented during the operational period. Therefore, several assumptions were made about general conditions, and closure and rehabilitation of the facilities at the site to develop the proposed closure actions. As additional information is collected during operations, these assumptions will be reviewed and revised as appropriate.

The assumptions used to prepare this plan include the following:

- The closure period will commence once the last planned weight of minerals has been extracted from the site for laboratory testing.
- The proposed prospecting sites will be adhered to minimise the potential impacts.
- Vegetation establishment will be in line with a project area's indigenous vegetation.
- Water management infrastructure developed for the operational phase will be retained for closure /end of the life of the project as necessary.
- There are limited opportunities for any infrastructure to be built on site and if any infrastructure is built, it will be of limited benefit to the community. Therefore, all buildings will be demolished.
- All hazardous and domestic waste will be transported offsite for disposal in licensed landfills.
- No roads are anticipated to be constructed to access the site; existing roads will be used as far as possible. Where access tracks have been developed in cases where there are no roads, these will be rehabilitated and closed as part of normal closure actions.

6.6.4 Closure and Rehabilitation Activities

The rehabilitation actions intended to be undertaken at the end of the life of the proposed prospecting activities are described below.



6.6.4.1 Infrastructure

All infrastructures will be decommissioned, and the footprints rehabilitated for the establishment of vegetation. Material inventories will be managed near the end of prospecting activities to minimize any surplus materials at closure. Where practicable, equipment and materials with value not needed for post-closure operations will be sold and or removed from the site. Equipment with scrap or salvage value will be removed from the site and sold to recyclers.

A soil contamination investigation will be conducted on completion of demolition activities. The purpose of this is to identify areas of possible contamination and design and implement appropriate remedial measures to ensure that the soil contaminants are removed. Closure actions will include:

- All power and water services to be disconnected and certified as safe prior to commencement of any decommissioning works;
- All remaining inert equipment and decommissioning waste will be disposed to the nearest licensed general waste disposal facility;
- Salvageable equipment will be removed and transported offsite prior and during decommissioning;
- All tanks, pipes and sumps containing hydrocarbons to be flushed or emptied prior to removal to ensure no hydrocarbon/chemical residue remains;

6.6.4.2 Boreholes

Closure of boreholes will entail backfilling with overburden stripped ahead of prospecting activities. All overburden should be replaced into the void and the final surface reshaped to simulate surrounding topography while ensuring that the surface is free draining.

Once backfilling is complete a growth medium cover will be placed, and vegetation will be established. There may be a requirement to include sacrificial erosion protection measures on the surface while vegetation is being established.


6.6.4.3 Roads

Existing roads will be used as far as possible. Closure actions concerning roads and parking areas will include:

- Removal of all signage, fencing, shade structures, traffic barriers, etc.
- All 'hard top' surfaces to be ripped along with any concrete structures.
- All potentially contaminated soils are to be identified and demarcated for later remediation; and
- All haul routes that have been treated with saline dust suppression water need to be treated, with the upper surface ripped and removed to designated contaminant disposal areas.

6.6.4.4 Remediation of Contaminated Areas

All soil, contaminated with hydrocarbons, will be identified, excavated, if possible, to at least 200 mm below the contaminated zone and then treated.

- All tanks, pipes and sumps containing hydrocarbons will be flushed or emptied.
- Removed soils will be managed as determined by the nature and extent of the contamination.
- Liquid storage tanks will be emptied, the structure removed/demolished and sub-surface holes filled; and
- All equipment in which chemicals have been stored or transported will be cleaned and disposed of in a suitable disposal facility.

6.6.4.5 Vegetation

Successful revegetation will help control erosion of soil resources, maintain soil productivity and reduce sediment loading in streams utilizing non-invasive plants that fit the criteria of the habitat (e.g. soils, water availability, slope and other appropriate environmental factors). Invasive species will be avoided, and the area will be managed to control the spread of these species.

To counter the effects of erosion, naturally occurring grassland species will be planted on slopes. These species will provide soil holding capacity and reduce runoff velocity.



The flatter areas will be re-vegetated with the objective of creating a sustainable ecosystem. The occurrence of protected plant species will need to be determined before vegetation is removed and the required permits will be obtained for either destruction or relocation.

6.6.4.6 Waste Management

Waste management activities will include:

- Hazardous waste will be managed handled, classified and disposed.
- Non-hazardous will be disposed in the nearby licensed landfill site;
- Scrap and waste steel will be sold to recyclers.
- It may be necessary to fence temporary salvage yards for security reasons, particularly where these are located close to public roads.



7. Public Participation Process

The public participation process commenced with newspaper advertisements in two widely distributed newspapers for two consecutive weeks as shown in Appendix B.

The registered interested and affected are indicated in the table below:

Table 11 Registered IAP's from various organs of state.

Name	Position	Organization
Teofillus Nghitila	Executive Director	Ministry of Environment and Tourism
Timoteus Mufeti	Environmental Commissioner	Ministry of Environment and Tourism
Maria Amakali	Director: Water Resources Management	Ministry of Agriculture, Water and Land Reform
E. Shivolo	Mining Commissioner	Min. of M&E - Mining Commissioner

Registered IAP's and Summary of Issues Raised

Name	Organization	email	Tel	



8. Conclusion

The scoping report is prepared for the Environmental Impact Assessment for mineral exploration on an area which is located about 25 km south of Ruacana, along the C35 road. Environmental scoping is a critical step in the preparation of an EIA for the proposed mineral exploration activities.

Basically, mineral exploration is relatively unsophisticated and rudimentary. The methods that will be employed are mainly target generation, target drilling, resource evaluation and mineral resource definition.

With the potential employment of 15 people, this means that 15 families will benefit from the project during the exploration phase. The project has great potential to improve livelihoods and contribute to sustainable development within the surrounding community.

At this stage, electricity requirements for the project are minimal. The bulk of the power supply to the exploration site will be sourced from the proponent's own generator.

The potential negative impacts associated with the proposed mineral exploration project are expected to be low to medium in significance. Provided that the relevant mitigation measures are successfully implemented by the proponent, there are no environmental reasons why the proposed project should not be approved. The project will have significant positive economic impacts that would benefit the local, regional and national economy of Namibia.

Several other potential impacts have been addressed in Section 5 and 6 of this EIA, and will be managed through the implementation of the EMP.

The EMP contains a set of Environmental Specifications that will form part of all contracts between the proponent and contractors such as lubrication companies. The requirements of the EMP will be enforced on site by the Management team, and periodic environmental audits will be undertaken and submitted to MET.

This EIA has been subject to a few limitations, which are explained as follows: -

• the time available in which to secure an environmental contract with the authorities; and,



The limited botanical work done to date did not raise any concerns but will be monitored on an on-going basis. If any "special" species of plants are found, these will be located by GPS. An addendum will then be added to the EMP to indicate localities that should be avoided, or to implement other appropriate measures about any special plants.



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Appendix A

SCIENTIEIC NAME		STATUS	OCCURRENCE
Fidolon helvum	STRAW-COLOBED EBUIT BAT	SECURE	SEASONAL
Nycteris thebaica	COMMON SUT-FACED BAT	SECURE	
Taphozous mauritianus	TOMB BAT	SECURE	SEASONAL
Rhinolophus fumidatus	BÜPPELL'S HOBSESHOE BAT	SECURE	
Rhinolophus darlingi	DABLING'S HORSESHOE BAT	SECURE	
Rhinolophus denti	DENT'S HORSESHOE BAT	SECURE	
	COMMERSON'S LEAF-NOSED	o come	OCCASIONALLI
Hipposideros commersoni	BAT	SECURE	ABUNDANTLY
Hipposideros caffer	SUNDEVALL' S LEAF-NOSED	SECURE	
Chaerephon nigeriae	NIGERIAN FREE-TAILED BAT	SECURE	ABUNDANTLY
Mops midas	MIDAS FREE-TAILED BAT	SECURE	ABUNDANTLY
Tadarida aegyptiaca	EGYPTIAN FREE-TAILED BAT	SECURE	ABUNDANTLY
	GREATER LONG-FINGERED		7.000007.0002
Miniopterus Inflatus	BAT	SECURE	RARELY
Miniopterus schreibersi	SCHREIBERS' LONG- FINGERED BAT	SECURE	ABUNDANTLY
Neoromicia capensis	CAPE SEROTINE BAT	SECURE	ABUNDANTLY
, Neoromicia zuluensis	ALOE SEROTINE BAT	SECURE	RARELY
Nycticeinops schlieffenii	SCHLIEFFEN' S BAT	SECURE	RARELY
Scotophilus dingani	AFRICAN YELLOW BAT	SECURE	ABUNDANTLY
Atoloriy frontolio	SOUTHERN AFRICAN	UNKNOWN,	7.000007.00021
Aleienx Ironlaiis	HEDGEHOG	RARE?	RARELY
Crocidura fuscomurina	TINY MUSK SHREW	SECURE	RARELY
Crocidura hirta	LESSER RED MUSK SHREW	SECURE	ABUNDANTLY
Galago moholi	SOUTHERN AFRICAN BUSHBABY	UNKNOWN, RARE?	ABUNDANTLY
Papio ursinus	CHACMA BABOON	SECURE	ABUNDANTLY
Lepus victoriae		SECURE	ABUNDANTLY
Xerus inaurus	CAPE GROUND SQUIRREL	SECURE	ABUNDANTLY
Funisciurus congicus	STRIPED TREE SQUIRREL	SECURE	RARELY
Saccostomus campestris	POUCHED MOUSE	SECURE	ABUNDANTLY
Tatera leucogaster	BUSHVELD GERBIL	SECURE	ABUNDANTLY
Tatera brantsii	HIGHVELD GERBIL	SECURE	ABUNDANTLY
Desmodillus auricularis	SHORT-TAILED GERBIL	SECURE	RARELY
Gerbillurus paeba	PYGMY GERBIL	SECURE	ABUNDANTLY
Steatomys pratensis	FAT MOUSE	SECURE	ABUNDANTLY
Malacothrix typica	LARGE-EARED MOUSE	SECURE	RARELY
Mus indutus	KALAHARI PYGMY MOUSE	SECURE	ABUNDANTLY
Lemniscomys rosalia	SINGLE-STRIPED MOUSE	SECURE	RARELY
Rhabdomys pumilio	STRIPED MOUSE	SECURE	ABUNDANTLY
Thallomys paedulcus	TREE RAT	SECURE	ABUNDANTLY
Thallomys nigricauda	BLACK-TAILED TREE RAT	SECURE	ABUNDANTLY
Aethomys namaquensis	NAMAQUA ROCK RAT	SECURE	RARELY
Aethomys chrysophilus	RED VELD RAT	SECURE	ABUNDANTLY
Zelotomys woosnami	WOOSNAM'S DESERT RAT	RARE	RARELY
Mastomys natalensis	NATAL MULTIMAMMATE	SECURE	ABUNDANTLY
Mastomvs coucha	MULTIMAMMATE MOUSE	SECURE	ABUNDANTLY
Graphiurus murinus	WOODLAND DORMOUSE	SECURE	ABUNDANTLY
Pedetes capensis	SPRINGHARE	SECURE	ABUNDANTLY
Hystrix africaeaustralis	SOUTHERN AFRICAN	SECURE	
Cruptomuo domostatia		SECURE	ABUNDANTLY
Cryptomys damarensis		FNDANGERED &	ABUNDANTLY
Felis lybica	AFRICAN WILD CAT	SUPERFICIAL	RARELY



Felis nigripes	SMALL - SPOTTED CAT	INDETERMINATE; PERIPHERAL; RARE?	RARELY
Leptailurus serval	SERVAL	AMBIGUOUS & SUPERFICIAL	RARELY
Caracal caracal	CARACAL	SECURE	ABUNDANTLY
Panthera pardus	LEOPARD	SECURE? & SUPERFICIAL	RARELY
Panthera leo	LION	AMBIGUOUS(END ANGERED) & SUPERFICIAL	EXTINCT
Acinonyx jubatus	СНЕЕТАН	INADEQUATELY KNOWN (ENDANGERED?) & SUPERFICIAL	ABUNDANTLY
Civettictis civetta	CIVET	AMBIGUOUS, RARE? & SUPERFICIAL	RARELY
Genetta maculata	SMALL-SPOTTED GENET	SECURE – SP (taxonomy)	ABUNDANTLY
Galarella sanguineus	SLENDER MONGOOSE	SECURE	ABUNDANTLY
Helogale parvula	DWARF MONGOOSE	SECURE	ABUNDANTLY
Mungos mungo	BANDED MONGOOSE	SECURE	ABUNDANTLY
Cynictis penicillata	YELLOW MONGOOSE	SECURE	ABUNDANTLY
Crocuta crocuta	SPOTTED HYAENA	SECURE? &	EV.TINIOT
			EXTINCT
Parahyaena brunnea	BROWN HYAENA	KNOWN (ENDANGERED?) & SUPERFICIAL	OCCASIONALLY
Proteles cristatus	AARDWOLF	INADEQUATELY KNOWN (ENDANGERED?)	
Canis mesomelas	BLACK-BACKED JACKAL	SECURE	
		ENDANGERED &	ABOINDAINTET
Lycaon pictus	WILD DOG	SUPERFICIAL	EXTINCT
Otocyon megalotis	BAT-EARED FOX	ENDANGERED? & SUPERFICIAL- SP	
Vulpes chama	CAPE FOX	ENDANGEBED?	
Ictonyx striatus	STRIPED POLECAT	SECURE	
Mellivora capensis	HONEY BADGEB	SECURE	RARELY
Poecilogale albinucha	AFRICAN STRIPED WEASEL	AMBIGUOUS(RAR E?)	RARELY
Manis temminckii	SAVANNA PANGOLIN	ENDANGERED & SUPERFICIAL	RARELY
Phacochoerus africanus	SOUTHERN WARTHOG	SECURE	ABUNDANTLY
Giraffa camelopardalis	GIRAFFE	ENDANGERED? & SUPERFICIAL	EXTINCT
Alcelaphus buselaphus	RED HARTEBEEST	SECURE ?	ABUNDANTLY
Antidorcas marsupialis	SPRINGBOK	SECURE	
Connochaetes taurinus	BLUE WILDEBEEST	INADEQUATELY KNOWN (ENDANGERED?) & SUPERFICIAL	ABUNDANTLY
Hippotragus equinus	ROAN	ENDANGERED & SUPERFICIAL	ABUNDANTLY
Madoqua damarensis	DAMARA DIK-DIK	INADEQUATELY KNOWN	RARELY
Oryx gazella	GEMSBOK	SECURE	ABUNDANTLY
Raphicerus campestris	STEENBOK	SECURE	ABUNDANTLY
Sylvicapra grimmia	COMMON DUIKER	SECURE	ABUNDANTLY
Syncerus caffer	BUFFALO	INSUFFFICIENTLY KNOWN & SUPERFICIAL	ABUNDANTLY
Tragelaphus oryx	ELAND	INADEQUATELY KNOWN & SUPERFICIAL	ABUNDANTLY
Tragelaphus strepsiceros	GREATER KUDU	SECURE	ABUNDANTLY



Equus burchelli	PLAINS ZEBRA	INADEQUATELY KNOWN & SUPERFICIAL	EXTINCT
Ceratotherium simum	WHITE RHINOCEROS	EXTINCT & REINTRODUCED (non topotypical stock)	EXTINCT
Diceros bicornis	BLACK RHINOCEROS	ENDANGERED & SUPERFICIAL	EXTINCT
Loxodonta africana	AFRICAN ELEPHANT	ENDANGERED & SUPERFICIAL	EXTINCT
Orycteropus afer	AARDVARK	SECURE ?	ABUNDANTLY
Elephantulus intufi	BUSHVELD SENGI	ENDEMIC AND SECURE	ABUNDANTLY

Reptile species which are likely to occur within the exploration area:

SCIENTIFIC NAME	COMMON NAME	STATUS	OCCURRENCE
Pelomedusa subrufa	HELMETED TERRAPIN	SECURE	ABUNDANTLY
Geochelone pardalis	LEOPARD TORTOISE	ENDANGERED & SUPERFICIAL	ABUNDANTLY
Psammobates oculiferus KALAHARI TORTOISE		ENDANGERED	ABUNDANTLY
Lygodactylus bradfieldi	NAMIBIAN DWARF GECKO	ENDEMIC & SECURE	ABUNDANTLY
Colopus wahlbergii	KALAHARI GROUND GECKO	SECURE	RARELY
Pachydactylus turneri	TROPICAL BUTTON-SCALE GECKO	SECURE	ABUNDANTLY
Pachydactylus capensis	CAPE GECKO	SECURE	UNCOMMONLY
Pachydactylus punctatus	SPECKLED GECKO	SECURE	ABUNDANTLY
Ptenopus garrulus	COMMON BARKING GECKO	SECURE	ABUNDANTLY
Agama aculeata	COMMON GROUND AGAMA	SECURE	ABUNDANTLY
Chamaeleo dilepis	FLAP-NECK CHAMELEON	SECURE	ABUNDANTLY
Acontias occidentalis	WESTERN LEGLESS SKINK	SECURE	ABUNDANTLY
Lygosoma sundevalli	COMMON WRITHING SKINK	SECURE	ABUNDANTLY
Trachylepis capensis	CAPE SKINK	SECURE	UNCOMMONLY
Trachylepis punctulata	EASTERN VARIEGATED SKINK	SECURE	ABUNDANTLY
Trachylepis wahlbergii	WAHLBERG'S STRIPED SKINK	SECURE	ABUNDANTLY
Trachylepis varia	COMMON VARIABLE SKINK	SECURE	ABUNDANTLY
Heliobolis lugubris	BUSHVELD LIZARD	SECURE	ABUNDANTLY
Ichnotropis capensis	CAPE ROUGH-SCALED LIZARD	SECURE	ABUNDANTLY
Ichnotropis squamulosa	COMMON ROUGH-SCALED LIZARD	SECURE	ABUNDANTLY
Nucras holubi	HOLUB'S SANDVELD LIZARD	SECURE	UNCOMMONLY
Nucras intertexta	SPOTTED SANDVELD LIZARD	SECURE	UNCOMMONLY
Pedioplanis lineoocellata	OCELLATED SAND LIZARD	SECURE	ABUNDANTLY
Pedioplanis namaquensis	NAMAQUA SAND LIZARD	SECURE	ABUNDANTLY
Gerrhosaurus auritus	KALAHARI PLATED LIZARD	SECURE	UNCOMMONLY
Gerrhosaurus nigrolineatus	BLACK-LINED PLATED LIZARD	SECURE	ABUNDANTLY
Varanus albigularis	VELD LEGUAAN (MONITOR)	ENDANGERED & SUPERFICIAL	ABUNDANTLY
Dalophia pistillum	BLUNT-TAILED WORM LIZARD	SECURE ?	MARGINALLY
Monopeltis anchietae	ANGOLAN SPADE-SNOUTED WORM LIZARD	SECURE	ABUNDANTLY
Monopeltis infuscata	DUSKY SPADE-SNOUTED WORM LIZARD	SECURE	ABUNDANTLY
Monopeltis leonhardi	KALAHARI SPADE-SNOUTED WORM LIZARD	SECURE	MARGINALLY
Monopeltis mauricei	SLENDER SPADE-SNOUTED WORM LIZARD	SECURE	MARGINALLY
Zygaspis quadrifrons	KALAHARI ROUND-HEADED WORM LIZARD	SECURE	ABUNDANTLY
Leptotyphlops labialis	DAMARA WORM SNAKE	ENDEMIC & SECURE	MARGINALLY
Leptotyphlops scutifrons	PETERS= WORM SNAKE	SECURE	ABUNDANTLY
Rhinotyphlops schlegelii	SCHLEGEL'S BLIND SNAKE	SECURE	ABUNDANTLY
Rhinotyphlops boylei	KALAHARI BLIND SNAKE	SECURE	RARELY



		1	
Python natalensis	SOUTHERN AFRICAN PYTHON	ENDANGERED & SUPERFICIAL	ABUNDANTLY
Amblyodipsas polylepis	COMMON PURPLE-GLOSSED SNAKE	INADEQUETLY KNOWN; RARE?	RARELY
Amblyodipsas ventrimaculata	KALAHARI PURPLE-GLOSSED SNAKE	SECURE	MARGINALLY
Aparallactus capensis	CAPE CENTIPEDE EATER	INADEQUETLY KNOWN ; RARE?	RARELY
Atractaspis bibronii	SOUTHERN STILLETO SNAKE	SECURE	ABUNDANTLY
Xenocalamus bicolor	VARIABLE QUILL-SNOUTED SNAKE	SECURE	ABUNDANTLY
Xenocalamus mechowii	ELONGATED QUILL-SNOUTED SNAKE	SECURE	MARGINALLY
Crotaphopeltis hotamboeia	WHITE-LIPPED SNAKE	INADEQUETLY KNOWN	RARELY
Dasypeltis scabra	RHOMBIC EGG EATER	SECURE	ABUNDANTLY
Dispholidus typus	BOOMSLANG	SECURE	ABUNDANTLY
Lamprophis fuliginosus	BROWN HOUSE SNAKE	SECURE	ABUNDANTLY
Lycophidion capense	CAPE WOLF SNAKE	SECURE	ABUNDANTLY
Mehelya capensis	CAPE FILE SNAKE	SECURE	UNCOMMONLY
Mehelya nyassae	BLACK FILE SNAKE	INADEQUETLY KNOWN	RARELY
Mehelya vernayi	ANGOLAN FILE SNAKE	INADEQUETLY KNOWN	UNCOMMONLY
Philothamnus angolensis	ANGOLAN GREEN SNAKE	SECURE	UNCOMMONLY
Philothamnus semivariegatus	SPOTTED BUSH SNAKE	SECURE	ABUNDANTLY
Prosymna angolensis	ANGOLA SHOVEL-SNOUT	SECURE	MARGINALLY
Prosymna bivittata	TWIN-STRIPED SHOVELSNOUT	SECURE	MARGINALLY
Psammophis angolensis	DWARF WHIP SNAKE	SECURE	ABUNDANTLY
Psammophis jallae	JALLA'S SAND SNAKE	INADEQUETLY KNOWN	RARELY
Psammophis leopardinus	LEOPARD WHIP SNAKE	ENDEMIC & SECURE	UNCOMMONLY
Psammophis mossambicus	OLIVE WHIP SNAKE	SECURE	ABUNDANTLY
Psammophis notostictus	KAROO WHIP SNAKE	SECURE	MARGINALLY
Psammophis subtaeniatus	WESTERN STRIPED-BELLIED SAND SNAKE	SECURE	ABUNDANTLY
Psammophis trigrammus	WESTERN WHIP SNAKE	ENDEMIC & SECURE	ABUNDANTLY
Psammophis trinasalis	KALAHARI SAND SNAKE	SECURE	UNCOMMONLY
Psammophylax tritaeniatus	STRIPED SKAAPSTEKER	SECURE	ABUNDANTLY
Pseudaspis cana	MOLE SNAKE	SECURE	ABUNDANTLY
Telescopus semiannulatus	SOUTHERN TIGER SNAKE	SECURE	ABUNDANTLY
Thelotornis capensis	VINE SNAKE	SECURE	UNCOMMONLY
Aspidelaps lubricus	CORAL SNAKE	SECURE	UNCOMMONLY
Aspidelaps scutatus	SHIELD-NOSE SNAKE	SECURE	ABUNDANTLY
Dendroaspis polylepis	BLACK MAMBA	SECURE	ABUNDANTLY
Elapsoidea semiannulata	ANGOLA GARTER SNAKE	SECURE	UNCOMMONLY
Elapsoidea sundevallii	KALAHARI GARTER SNAKE	SECURE	UNCOMMONLY
Naja anchietae	ANGOLAN COBRA	SECURE	ABUNDANTLY
Naja mossambica	MOZAMBIQUE SPITTING COBRA	SECURE	RARELY
Naja nigricincta	ZEBRA SNAKE	ENDEMIC & SECURE	ABUNDANTLY
Bitis caudalis	HORNED ADDER	SECURE	UNCOMMONLY
Bitis arietans	PUFF ADDER	SECURE	ABUNDANTLY

Bird species which are likely to occur within the project area:

SCIENTIFIC NAME	COMMON NAME	STATUS IN NAMIBIA
Accipiter badius	Little Banded Goshawk	Secure
Accipiter ovampensis	Ovambo Sparrowhawk	Secure
Actophilornis africanus	African Jacana	Secure
Agapornis roseicollis	Rosyfaced Lovebird	Secure
Anastomus lamelligerus	Openbilled Stork	Secure
Anthus cinnamomeus	Richard's Pipit	Secure
Apus affinis	Little Swift	Secure
Apus apus	European Swift	Secure



Apus caffer	Whiterumped Swift	Secure
Apus melba	Alpine Swift	Secure
Aquila nipalensis	Steppe Eagle	Secure -
Aquila rapax	Tawny Eagle	Endangered
Aguila wahlbergi	Wahlberg's Eagle	Secure
Ardeotis kori	Kori Bustard	Secure
Batis molitor	Chinspot Batis	Secure
Batis pririt	Pririt Batis	Secure
Bubalornis niger	Redbilled Buffalo Weaver	Secure
Burhinus capensis	Spotted Dikkop	Secure
Buteo buteo	Steppe Buzzard	Secure -
Calamonastes fasciolatus	Barred Warbler	Secure
Calendulauda sabota	Sabota Lark	Secure
Camaroptera brevicaudata	Greybacked Camaroptera	Secure
Caprimulgus pectoralis	Fierynecked Nightjar	Secure
Caprimulgus rufigena	Rufouscheeked Nightjar	Secure
Ceryle rudis	Pied Kingfisher	Secure
Chrysococcyx caprius	Diederik Cuckoo	Secure
Chrysococcyx klaas	Klaas's Cuckoo	Secure
Ciconia abdimii	Abdim's Stork	Secure
Cinnyris mariquensis	Marico Sunbird	Secure
Circaetus pectoralis	Blackbreasted Snake Eagle	Secure
Cisticola chiniana	Rattling Cisticola	Secure
Cisticola rufilatus	Tinkling Cisticola	Secure
Clamator glandarius	Great Spotted Cuckoo	Secure
Coracias caudata	Lilacbreasted Roller	Secure
Coracias garrulus	European Roller	Secure -
Coracias naevia	Purple Roller	Secure
Corvinella melanoleuca	Longtailed Shrike	Secure
Corvus capensis	Black Crow	Secure
Corythaixoides concolor	Grey Lourie	Secure
Creatophora cinerea	Wattled Starling	Secure
Crithagra flaviventris	Yellow Canary	Secure
Cuculus clamosus	Black Cuckoo	Secure
Cuculus gularis	African Cuckoo	Secure
		Secure
Cypsiurus parvus	Paim Swift	Secure
Delicnon urbicum	House Martin	Secure -
Dicrurus adsimilis	Porklalled Drongo	Secure
Elanus caeruleus	Blackshouldered Kile	Secure
Emberiza haviventris	Goldenbreasted Bunting	Secure
Emberiza lanapisis	Kock building Vallewballiad Eramomala	Secure
Eremonterix verticelie	Gravbackad Einablark	Secure
Erythropygia leucophrys	Whitebrowed Robin	Secure
Erythropygia neucophilys	Kalabari Bobin	Secure
Estrilda erythropotos	Blackcheeked Waxhill	Secure
Fundatis afraoides	Whiteguilled Korhaan	Secure
Eupodotis anacides	Bedcrested Korhaan	Secure
Eurocenhalus anguitimens	Whitecrowned Shrike	Secure
Falco biarmicus	Lanner Falcon	Secure
Falco chicquera	Bednecked Falcon	Secure
Falco subbuteo	Hobby Falcon	Secure -
Falco tinnunculus	Rock Kestrel	Secure
Falco vespertinus	Western Redfooted Kestrel	Secure
Francolinus adspersus	Redbilled Francolin	Secure
Francolinus sephaena	Crested Francolin	Secure
Francolinus swainsonii	Swainson's Francolin	Secure
Gallinago nigripennis	Ethiopian Snipe	Secure
Gyps africanus	Whitebacked Vulture	Near Threatened
Hieraaetus pennatus	Booted Eagle	Endangered
Hirundo abyssinica	Lesser Striped Swallow	Secure



Hirundo cucullata	Greater Striped Swallow	Secure
Hirundo fuliqula	Rock Martin	Secure
Hirundo rustica	European Swallow	Secure -
Hirundo semirufa	Redbreasted Swallow	Secure
Lamprotornis australis	Burchell's Starling	Secure
Lamprotornis nitens	Glossy Starling	Secure
Laniarius atrococcineus	Crimsonbreasted Shrike	Secure
Lanius collaris	Fiscal Shrike	Secure
Lanius collurio	Redbacked Shrike	Secure -
Lanius minor	Lesser Grey Shrike	Secure -
Melaenornis infuscatus	Chat Flycatcher	Secure
Melaenornis mariquensis	Marico Flycatcher	Secure
Melierax canorus	Pale Chanting Goshawk	Secure
Merops apiaster	European Bee-Eater	Secure -
Merops hirundineus	Swallowtailed Bee-Eater	Secure
Micronisus gabar	Gabar Goshawk	Secure
Milvus migrans	Black Kite	Secure -
Milvus parasitus	Yellowbilled Kite	Secure
Mirafra passerina	Monotonous Lark	Secure
Monticola brevipes	Shorttoed Rock Thrush	Secure
Muscicapa striata	Spotted Flycatcher	Secure -
Nectarinia fusca	Dusky Sunbird	Secure
Nectarinia talatala	Whitebellied Sunbird	Secure
Nilaus afer	Brubru	Secure
Numida meleagris	Helmeted Guineafowl	Secure
Oena capensis	Namaqua Dove	Secure
Onychognathus nabouroup	Palewinged Starling	Secure
Parisoma subcaeruleum	Titbabbler	Secure
Parus cinerascens	Ashy Tit	Secure
Passer diffusus	Southern Grey-headed Sparrow	Secure
Passer motitensis	Great Sparrow	Secure
Plocepasser mahali	Whitebrowed Sparrowweaver	Secure
Ploceus velatus	Masked Weaver	Secure
Polemaetus bellicosus	Martial Eagle	Endangered
Polihierax semitorquatus	Pygmy Falcon	Secure
Prinia flavicans	Blackchested Prinia	Secure
Psophocicnia litsitsirupa	Groundscraper Inrush	Secure
Pterocles bicinctus	Doublebanded Sandgrouse	Secure
Plerocles namaqua	Namaqua Sanogrouse	Secure
Pychonolus nigricans	Nelles Firsh	Secure
Pyllia melba	Melba Finch Dedbilled Queles	Secure
Delea quelea	Redbilled Quelea	Secure
Phinopolitasius cyanometas	Bronzowingod Coursor	Secure
Scopus umbretta	Hamerkon	Secure
Serinus atroqularis	Blackthroated Canary	Secure
Smutsornis africanus	Doublebanded Courser	Secure
Sporopines squamifrons	Scalvfeathered Finch	Secure
Strentonelia canicola	Cape Turtle Dove	Secure
Streptopelia senegalensis		Secure
Struthio camelus	Ostrich	Secure
Sylvietta rufescens	Longbilled Crombec	Secure
Tchagra australis	Threestreaked Tchagra	Secure
Terathopius ecaudatus	Bateleur	Endangered
Thripias namaguus	Bearded Woodpecker	Secure
Tockus erythrorhynchus	Redbilled Hornbill	Secure
Tockus leucomelas	Southern Yellowbilled Hornbill	Secure
Tockus nasutus	Grey Hornbill	Secure
Torgos tracheliotus	Lappetfaced Vulture	Vulnerable
Tricholaema leucomelas	Pied Barbet	Secure
Turdoides bicolor	Pied Babbler	Secure
Turtur chalcospilos	Greenspotted Dove	Secure



Upupa epops	Ноорое	Secure
Uraeginthus angolensis	Blue Waxbill	Secure
Uraeginthus granatinus	Violeteared Waxbill	Secure
Urocolius indicus	Redfaced Mousebird	Secure
Vanellus armatus	Blacksmith Plover	Secure
Vanellus coronatus	Crowned Plover	Secure
Vanellus senegallus	Wattled Plover	Secure
Vidua regia	Shafttailed Whydah	Secure
Zosterops senegalensis	Yellow White-Eye	Secure

Appendix B: Proof of Advertisements, Letters and Notices



Appendix of CV's



SPORTS



Lampard starts Everton reign as minnows Kidderminster aim to topple West Ham

Frank Lampard will take charge of Everton for the first time when Brentford visit Goodison Park in the FA Cup fourth round this weekend while West Ham face a tricky tie against non-league Kidderminster.

Manchester United kick-off the round at home to Middlesbrough on Friday and Premier League leaders Manchester City face free-scoring Fulham, top of the Championship, the following day.

AFP Sport takes a look at some of the talking points ahead of the weekend's action.

'No illusions' for Everton's Lampard Keen to restore his reputation after the frustrating end to his time as Chelsea manager, Lampard is ready for the challenge of lifting the gloom at Everton. Lampard is back in management just over a year after his sacking by Chelsea, but the former England star arrives at Goodison Park with his new club in turmoil after Rafael Benitez's disastrous reign.

Everton are just four points above the Premier League relegation zone, with their only win in their past six games coming in extra-time at second-tier Hull in the FA Cup.

Furious fans have protested against Everton majority shareholder Farhad Moshiri for his perceived role in the club's decline.

Lampard needs a quick start in what is shaping up to be the acid test of his managerial skills after a mixed 18-month spell at Chelsea.

"Of course we know we're in a position the club doesn't want to be in," Lampard said ahead of his first game

on Saturday.

"I'm under no illusions but I've got a lot of belief in the squad."Nobody would be happy with the run we've been on in terms of points but I have to bring an element of calm to the players."KIDDERMINISTER EYE WEST HAM SHOCK Kidderminster manager Russ Penn has challenged his non-league side to inflict fresh FA Cup anguish on West Ham boss David Moyes and the Premier League club's owners.

Moyes will be well aware West Ham cannot afford to underestimate Kidderminster after he was dumped out of the competition by them as a Preston player in 1994.

That victory was part of Kidderminster's best FA Cup run -- to the fifth round -- a memorable campaign that also featured a win against Birmingham, then owned by David Gold and David Sullivan, the current co-owners of West Ham.

"I knew about the David Moyes link, but I completely forgot about Gold and Sullivan. This is what I mean, it is history," Penn said.

"We have to believe history can be made one day, so let's hope it could be Saturday."

Kidderminster, from the sixthtier National League North, beat Championship side Reading to set up their date with West Ham, who are fifth in the Premier League.

Moyes is likely to rotate his team at Aggborough as the Hammers focus on chasing Champions League qualification, but Penn would prefer to face their star men.

"You would rather get the best of the best," Penn said. "This is our cup final."

GOSSIP

Tottenham Hotspur will make a move to sign Napoli striker Victor Osimhen in the summer after having an approach for the 23-year-old Nigerian knocked back by the Italian club during the January window. (Football Insider)

Arsenal are planning to spend up to £180m this summer to sign Wolves' Portugal midfielder Ruben Neves and Everton's England striker Dominic Calvert-Lewin, both 24, plus Real Sociedad's Sweden forward Alexander Isak, 22. (Sun)

Newcastle United will revive their interest in Lille's Sven Botman, 22, if the club avoid relegation from the Premier League after failing to land the Netherlands defender in January. (Athletic - subscription required)

However, Botman is attracting interest from Tottenham, who are also monitoring 22-year-old Inter Milan and Italy defender Alessandro Bastoni, 22, and Croatia's Josko Gvardiol, 20, from RB Leipzig. (Telegraph)

Leeds United are confident of tying Brazil winger Raphinha down to a new contract that would make the 25-yearold the highest-paid player at Elland Road. (Football Insider)

Roma are willing to listen to offers of 40m euros (£33.6m) for Italy forward Nicolo Zaniolo, with Juventus and Tottenham among the clubs interested in the 22-year-old. (Calciomercato - in Italian)

England and West Ham United midfielder Declan Rice, 23, continues to be linked with a return to Chelsea as he reveals his idol growing up in the Blues' academy was former captain John Terry. (football.london)

Former Arsenal and Brazil midfielder Willian, 33, walked away from the club and £20m in wages when he returned to Corinthians last summer. (Four Four Two)

France midfielder Tanguy Ndombele has said his Tottenham career is "not over" after the 25-year-old returned to Lyon on loan on deadline day. (RMC Sport via Mirror)

Portugal forward Cristiano Ronaldo, 36, will wait until Manchester United announce the identity of their new manager before deciding if he will stay at Old Trafford. (ESPN)

West Ham will target Arsenal's France Under-21 centre-back William Saliba, 20, who is on loan with Marseille, in the summer. Saliba has also been linked with Inter Milan, AC Milan and Real Madrid. (Jeunes Footeux via Sport Witness)

Liverpool could pursue their interest in Fabio Carvalho again in the summer after almost signing the Fulham midfielder last month. However foreign clubs would have to pay much less compensation for the England youth international, 19, which has alerted Real Madrid, Barcelona, Sevilla, Borussia Dortmund and AC Milan. (AS - in Spanish) Brazil winger Douglas Costa, 31, has turned down an approach from Flamengo in his homeland and agreed to join MLS side LA Galaxy on a sixmonth loan from Juventus, followed by a permanent two-year deal. (Fabrizio Romano) Ex-Real Madrid manager Zinedine Zidane, 49, is yet to agree to become Mauricio Pochettino's successor as Paris St-Germain boss as he is waiting to see if Didier Deschamps will leave his role as France coach. (RMC Sport - in French)

CALL FOR PUBLIC PARTICIPATION ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR EPL 8314

Notice is hereby given that an application for Environmental Clearance Certificate (ECC) will be made to the Ministry of Environment, Foresty & Tourism (MEFT) in terms of the Environmental Management Act (No.7 of 2007) and the Environmental Regulations (GN 30 of 2012).

CALL FOR PUBLIC PARTICIPATION ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR EPL 8282

Notice is hereby given that an application for Environmental Clearance Certificate (ECC) will be made to the Ministry of Environment, Foresty & Tourism (MEFT) in terms of the Environmental Management Act (No.7 of 2007) and the Environmental Regulations (GN 30 of 2012).

Project: The area is located about 25 km south of Ruacana, along the C35 road. The proponent intends to explore for copper. Exploration methods may include geological mapping, geochemical sampling, and drilling. **Proponents:** Qualicom Investments CC

All interested and affected parties are hereby invited to register and submit their comments regarding the proposed project on or before **10/02/2022.** Contact details for registration and further information:

Impala Environmental Consulting Mr. S. Andjamba Email: eia@impalac.com, Tel: 0856630598



Project: The area is located about 25 km north of Outjo, along the D2780 road. The proponent intends to explore for copper. Exploration methods may include geological mapping, geochemical sampling, and drilling. **Proponents:** Qualicom Investments CC

All interested and affected parties are hereby invited to register and submit their comments regarding the proposed project on or before **10/02/2022.** Contact details for registration and further information:

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IMPALA

SPORTS

Luis Diaz: Liverpool make move for Porto and Colombia winger

BY MANDEEP SANGHERABBC SPORT

iverpool are trying to sign Colombia winger Luis Diaz from Porto in the current transfer window.

The deal, if completed, is expected to be worth \notin 45m (£37m) plus a maximum of \notin 15m in potential bonuses.

Liverpool were planning to wait until the summer but changed their stance as it became clear that Diaz could move elsewhere if they did not act.

The 25-year-old had been linked with a move to Tottenham, who reportedly had a bid of around $\pounds 38m$ rejected.

Diaz was Liverpool boss Jurgen Klopp's first choice for the summer when the asking price would have been $\notin 60$ million (£49.9m).

However, the proposed move is far from straightforward as Diaz is cur-

rently with his national team.

Diaz has played against Liverpool twice in the Champions League this season, with Porto losing 5-1 and 2-0 in the group stages of the competition.

Porto failed to progress into the knockout stages of the competition after finishing behind Liverpool and Atletico Madrid in their group. However, they are top of the Portuguese top division, with Diaz having scored 14 goals and registered five assists in 18 league appearances.

If the deal is completed this window, it will be seen as a big coup for Julian Ward, who will take over as Liverpool sporting director when Michael Edwards leaves in the summer.

Ward had led on the move for Diaz, while Edwards has played an important role in support.



Diaz has scored 20 goals in 37 appearances for club and country this season



Everton to hold final manager talks with Frank Lampard, Vitor Pereira and Duncan Ferguson in frame

BY PHIL MCNULTYCHIEF FOOTBALL WRITER

E verton owner Farhad Moshiri will hold a final round of talks on Friday before deciding on a managerial successor to sacked Rafael Benitez. Moshiri pulled back from appointing favoured choice Vitor Pereira - who remains a serious contender - after an angry reaction from supporters.

That left Frank Lampard to reemerge as a serious candidate following an initial round of talks.

CALL FOR PUBLIC PARTICIPATION

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR EPL 8314

Notice is hereby given that an application for Environmental Clearance Certificate (ECC) will be made to the Ministry of Environment, Foresty & Tourism (MEFT) in terms of the Environmental Management Act (No.7 of 2007) and the Environmental Regulations (GN 30 of 2012).

Caretaker manager Duncan Ferguson is the other name on Moshiri's list.

Pereira was in pole position after impressing Moshiri in his interview, but a toxic reaction from Everton fans to the 53-year-old's proposed appointment appeared to lead to a pause, although he remains very much in Moshiri's thinking.

In a limited field Lampard, who finished fourth and reached the FA Cup final in his one full season at Chelsea before being sacked in January 2021, appears the choice who would at least unite an increasingly disgruntled fanbase, but he must also await Moshiri's final decision.

Pereira tried to placate fans by conducting a lengthy television interview detailing his talks with Everton's powerbrokers and his plans should he be appointed, but it has failed to erase concerns about his credentials from supporters. He is currently out of work having been sacked by Turkish club Fenerbahce in December.

Everton's attempts to find a successor to Benitez have appeared dysfunctional from the moment an ill-fated attempt to appoint Belgium coach and former manager Roberto

EPL 8282

CALL FOR PUBLIC PARTICIPATION

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR

Notice is hereby given that an application for Environmental

Clearance Certificate (ECC) will be made to the Ministry of

Environment, Foresty & Tourism (MEFT) in terms of the

Environmental Management Act (No.7 of 2007) and the

Martinez - the first of five Goodison bosses sacked by Moshiri in May 2016 after fan protests - was blocked by the country's Football Association, who would not sanction such a move in a World Cup year.

There was a sit-in and protests after Saturday's home defeat by Aston Villa. They have continued this week outside the club's city centre headquarters and also at Goodison Park on Wednesday night, when hundreds of fans gathered at the stadium.

Moshiri's regime and chairman Bill Kenwright were targets for angry supporters, but there was also fury and banners directed at agent Kia Joorabchian, who has been identified by Everton fans as wielding too much influence over the owner.

Amid the unrest, Everton have slumped towards the relegation zone after one win in 14 league games, only four points off the bottom three.

Meanwhile, the Toffees have confirmed midfielders Abdoulaye Doucoure and Fabian Delph will be out for a minimum of four weeks.

Doucoure was forced off with a groin injury against Aston Villa last weekend, while Delph picked up a thigh problem in training.

GOSSIP

Uventus have agreed to sign Fiorentina's 21-yearold Serbia striker Dusan Vlahovic, who has been linked with Arsenal, in a deal worth £62.4m. (Mail, via Guardian)

Wolves are confident of holding on to 24-year-old Portugal midfielder Ruben Neves until at least the summer despite interest from Manchester United and Arsenal. (Sun)

Tottenham are interested in Bayern Munich's 25-year-old German goalkeeper Alexander Nubel, who is currently on loan at Monaco. (Goal)

Paris St-Germain are closing in on the loan signing of Tottenham's 25-year-old France midfielder Tanguy Ndombele. (Telegraph subscription required)

Rangers have joined the race to sign Manchester City's England U20 midfielder James McAtee on Ioan. Southampton, Brighton, Aston Villa and Leicester are also interested in the 19-year-old. (Teamtalk)

Newcastle United have completed a deal to sign 24-year-old Brazil midfielder Bruno Guimaraes from Lyon for $\pounds 30m$. (Talksport)

Roma boss Jose Mourinho remains hopeful the Serie A side can sign Arsenal and Switzerland midfielder Granit Xhaka, 29, before the January transfer window closes. (Mail)

West Ham's top two targets for the January transfer window are 20-yearold Albania striker Armando Broja, who is on loan at Southampton from Chelsea, and 22-year-old Chile forward Ben Brereton Diaz, who plays for Blackburn Rovers. (Football Insider)

Everton, Leeds United and Wolves are also interested in signing Broja, who Southampton want to keep beyond the current campaign. (Teamtalk)

Aston Villa have turned down a £30m bid from an unnamed Premier League club for Brazilian midfielder Douglas Luiz. Arsenal are considering making a move for the 23-year-old but are not thought to be the club who have had the offer knocked back. (Evening Standard)

Arsenal's chase of Cody Gakpo, 22, will have to wait until at least the summer window as PSV Eindhoven have tied the Netherlands forward down to a contract extension. (Mail)

Arsenal have agreed a deal to sign United States goalkeeper Matt Turner, 27, from Major League Soccer side New England Revolution in the summer. (Athletic

Project: The area is located about 25 km south of Ruacana, along the C35 road. The proponent intends to explore for copper. Exploration methods may include geological mapping, geochemical sampling, and drilling. **Proponents:** Qualicom Investments CC

All interested and affected parties are hereby invited to register and submit their comments regarding the proposed project on or before **10/02/2022.** Contact details for registration and further information:

Impala Environmental Consulting Mr. S. Andjamba Email: eia@impalac.com, Tel: 0856630598



Project: The area is located about 25 km north of Outjo, along the D2780 road. The proponent intends to explore for copper. Exploration methods may include geological mapping, geochemical sampling, and drilling.

Proponents: Qualicom Investments CC

Environmental Regulations (GN 30 of 2012).

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- subscription required)

Aston Villa, Everton and Leicester City are monitoring 29-year-old England international Jesse Lingard's situation, with the Manchester United attacking midfielder's move to Newcastle United set to collapse. (Manchester Evening News)

Barcelona have made contact with Borussia Dortmund as they look to sign 30-year-old Belgium right-back Thomas Meunier on loan from the German side. (Marca)

Chelsea offered Lyon £3m in compensation to bring Italy leftback Emerson Palmieri, 27, back early from his season-long loan at the French club but saw the attempt rejected. (Mail, via Athletic)



Tel: (061) 2080844

and drilling.

Investments CC

details for registration

and further information:

Impala Environmental

Consulting

Email:

Mr. S. Andjamba

Tel: 0856630598

eia@ impalac.com,

IMPALA

VENVIRONMENTAL

REPUBLIC OF NAMIBIA MINISTRY OF TRADE & INDUSTRY LIQUOR ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998 (regulations 14, 26 & 33) Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region: OMAHEKE 1. Name and postal address of applicant,

applicant, ANNA HANSINA NAWASES

ANNA HANSINA NAWASES PO BOX 98061, WINDHOEK 2. Name of business or proposed Business to which applicant relates FOREST BOTTLE STORE 3. Address/Location of premises to which Application relates: ERF 120, LEONARDVILLE, GABABIS

GABABIS

4. Nature and details of application:

Nature and details of application: SPECIAL BOTTLE STORE LIQUOR LICENCE
 Clerk of the court with whom Application will be lodged:
 GOBABIS MAGISTRATE OFFICE
 Contenting the service of the service of

6. Date on which application will

be Lodged: 09 FEBRUARY 2022

7 Date of meeting of Committee at Which application will be heard: 09 MARCH 2022

Any objection or written submission in terms of section 28 of the Act in

relation to the applicant must be sent

or delivered to the Secretary of the

Committee to reach the Secretary of the less than 21 days before the date of the meeting of the Committee at which the application will be heard.

Notices

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NOTICE OF ENVIRONMENTAL **IMPACT ASSESSMENT** (EIA): ENVIRONMENTAL CLEARANCE **CERTIFICATE FOR** THE PROPOSED **EXPLORATION ACTIVITIES ON** THE EXCLUSIVE PROSPECTING LICENSE (EPL) NO. 8181 LOCATED NORTH OF **KLEIN AUB IN HARDAP** & KHOMAS REGIONS

Under the Environmental Management Act No. 7 of 2007 and its 2012 EIA Regulations, the proposed exploration activities on the EPL No. 8181 requires an **Environmental Clearance** Certificate (ECC) from the Department of Environmental Affairs and Forestry (DEAF) before commencement.

The public is hereby notified, that an application for an ECC will be submitted to the Environmental Commissioner.

Brief Project Description: The environmental scoping process will identify potential positive and negative impacts of the proposed exploration activities on EPL 8181. Invasive and non-invasive activities are expected to take place upon issuance of an ECC. The project has targeted to explore Base and Rare Metals and Precious Metals

Proponent: Parabola Investments CC

Environmental Consultant: Excel Dynamic Solutions (Pty) Ltd Members of the public are invited to register as Interested and Affected Parties in order to comment/ raise concerns or receive further information on the Environmental Assessment process.

Public participation meeting will be held on: Date: To be confirmed and communicated with Interested and Affected Parties

Time: To be confirmed and communicated with Interested and Affected Parties

Venue: To be confirmed and communicated with Interested and Affected Parties

Registration requests and comments should be forwarded to Excel Dynamic Solutions (Pty) Ltd on the contact details below, before or on the 18 February 2022.

Mr. Silas David Email: public@ edsnamibia.com Tel: + 264 61 259 530

PUBLIC NOTICE **ENVIRONMENTAL**

Notices

ENVIRONMENTAL **IMPACT ASSESSMENT IMPACT ASSESSMENT** (EIA) FOR EPL 8314 (EIA) FOR EPL 8282 Notice is hereby given Notice is hereby given that an application for that an application for Environmental Clearance

Environmental Clearance Certificate (ECC) will be Certificate (ECC) will be made to the Ministry of made to the Ministry of Environment, Foresty & Environment, Foresty & Tourism (MEFT) in terms Tourism (MEFT) in terms of the Environmental of the Environmental Management Act Management Act (No.7 of 2007) and the (No.7 of 2007) and the **Environmental Regulations Environmental Regulations** (GN 30 of 2012). (GN 30 of 2012).

Project: The area is located Project: The area is about 25 km north of Outjo, along the D2780 road. located about 25 km south The proponent intends of Ruacana, along the to explore for copper. C35 road. The proponent Exploration methods intends to explore for may include geological copper. Exploration mapping, geochemical methods may include sampling, and drilling. geological mapping, geochemical sampling, **Proponents:**

Qualicom Investments CC Proponents: Qualicom All interested and affected

parties are hereby invited to register and submit their All interested and affected comments regarding the proposed project on or parties are hereby invited before 10/02/2022. Contact to register and submit their details for registration comments regarding the and further information: proposed project on or before 10/02/2022. Contact

Impala Environmental Consulting Mr. S. Andjamba Email: eia@ impalac.com,

Tel: 0856630598 **IMPALA**



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

CONSENT: SELF CATERING ACCOMMODATION ON ERF NO: 3512 TOWNSHIP/AREA. HERMIS STREET NAME & NO:

S. JOHN YA OTTO STREET In terms of the Walvis Bay Town Planning Scheme notice is hereby given that I/ we, the undersigned, have applied to the Municipality of Walvis Bay for permission to erect/establish on the a/an: SELF CATERING

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

Any person having any objection to the approval of this application, must lodge such objection. together with arounds thereof, with the General Manager: Roads and Building Control. (Towr Planning), Private Bag 5017, Walvis Bay and the applicant in writing, not later than 19 February 2022

Colette Pickering Po box 2708, Walvisbay colettecpi@gmail.com

Notices Notices

PUBLIC NOTICE

REPUBLIC OF NAMIBIA MINISTRY OF TRADE & INDUSTRY LIQUOR ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998 (regulations 14, 26 & 33) Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region: OMUSATI 1 home and postal address of

1. Name and postal address of applicant, JAIRUS SAARA NAMBULA PO BOX 685, TSANDI 2. Name of business or proposed Purinease to which applicant related

Business to which applicant r SPICE MINI MARKET nt relates

SPICE MINI MARKE I 3. Address/Location of premises to which Application relates: OMAANDA VILLAGE, OKA- FRIED LOCATION, TSANDI CONSTITUENCY A Volume and details of applications Nature and details of application: MINI GROCERY LIQUOR

LICENCE 5. Clerk of the court with whom Application will be lodged: Application will be lodged: **OUTAPI MAGISTRATE OFFICE** 6. Date on which application will be Lodged: 17-31 JANUARY 2022

77-31 JANUARY 2022 7 Date of meeting of Committee at Which application will be heard: 09 MARCH 2022 Any objection or written submission in terms of section 28 of the Act in Polition to the applicate much be cont

relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at whic the application will be heard. ee at which

NOTICE FOR PUBLICATION (THREE STOREY DWELLING **APPLICATION**)

Take notice that the owner, Mr. Negonga of ERF 736 Terrace Street. Kleine Kuppe intends on applying to the Windhoek Municipal Council for the construction of a threestorey dwelling unit.

The proposed construction will allow the owner to erect the three-storey dwelling unit on ERF 736 Terrace Street, Kleine Kuppe.

The owner's current intentions are to erect and use the building for residential purpose. Further take notice that the plan of the erf lies for inspection on the town planning notice board in the Customer Care Centre, Main Municipal Offices, Rev. Michael Scott Street, Windhoek.

Any person objecting to the proposed use of the land as set out above may lodge such objection together with the grounds thereof, with the city of Windhoek, fifth floor, office 524 and with the architect in writing within 14 days of the last publication of this notice.

The last date for any objection is 14 February 2022.

Dated at Windhoek this 26th day of January 2022.

Owner Name:

Amupolo Negonga **Postal Address:** 24756, Windhoek **Contact Number:** 0816815722

Email: Classifieds@nepc.com.na

Notices

GENERAL NOTICE

AMENDMENT OF TITLE

CONDITIONS

On behalf of the owner of

Erf 349, Okongo Proper,

the Okongo Village Council,

PLANTEK intends applying

to the Oshikoto Regional

the Main Road leading to

Eenhana. Erf 349 Okongo

Proper measures 80 478m²

in size and is currently

build up with a number of

Our client intends to

Permanently Close Erf

349 Okongo Proper as a

Public Open Space and to

amend the title conditions

from "Public Open Space"

to "Business" in order for

the current situation of Erf

349 Okongo Proper to be

The size of the newly

created "Business" erven

will vary between 1 502m² to

7 541m². Onsite parking will

be provided in accordance

with the Oshikoto Regional

Take notice that the locality

plan of the erf lies for

inspection at the Okongo

Village Council Offices,

during normal office hours.

Further take notice that

any person objecting to

the proposed use of the

land as set out above

may lodge such objection

together with the grounds

thereof, with the Council

and with the applicant

in writing within 14 days

of the last publication of

this notice. The last day

for objections will be 17th

plantek@africaonline.

of February 2022.

P.O.Box 9807, Eros

Plantek

Council's requirements.

rectified and amended.

"Business" buildings.

Council for:

Notices

APPLICATION FOR CONSENT IN TERMS OF TABLE B OF THE WINDHOEK TOWN

PLANNING SCHEME TO USE ERF 1256, PIONIERSPARK FOR A 'BUSINESS BUILDING' FOR MEDICAL CONSULTING ROOMS, A PHARMACY AND A SMALL DAY CLINIC (3 BEDS)

Take notice that **DU TOIT TOWN PLANNING CONSULTANTS**, is applying on behalf of the owner of Erf 1256, Pionierspark, the Trustees of the Body Corporate of Von Auer Platz, in terms of the stipulations of the Urban and Regional Planning Act, 2018 (Act No. 5 of 2018), to the Windhoek City Council for:

•Consent in terms of Table B of the Windhoek Town Planning Scheme to use the erf for a 'business building' for medical consulting rooms, a pharmacy (±73m²) and a small day clinic (3 beds)

Erf 1256 is in Gous Street. Pionierspark directly west of the Baines Shopping Centre. The western public parking area of Baines Centre, also known as Von Auer Platz, is between the Baines Shopping Centre and Erf 1256. The Erf is zoned 'office' with a bulk of 0.5. The Von Auer Platz Sectional Title Scheme consists of 8 units. The Pionierspark Medical Centre has been established and operating from the erf for over two decades from which several medical practitioners and financial administrative offices operate from.

Although the erf has had an 'office' zoning for at least 21 years, the consent for 'business building' to allow for medical consulting rooms was overlooked. This noncompliance resulted in the practices being unable to renew their fitness certificates which has serious repercussions such as not being able to claim from the Medical Aid Funds. It is therefore the intention of the owner to rectify this and apply for medical consent to bring the use in line with the Windhoek Town Planning Scheme and allow the practitioners to obtain the necessary fitness certificates under the proper zoning.

The intended application is in line with the Windhoek Structure plan and sufficient parking is provided for on-site as per the City of Windhoek requirements.

Further take notice that the locality plan of the site lies for inspection on the Town Planning Notice Board in the Customer Care Centre, Municipal Offices, Rev. Michael Scott Street, Windhoek and at the offices of Du Toit Town Planning, 4 Dr. Kwame Nkrumah Avenue, Klein Windhoek.

Any person objecting to the proposed use of land as set out above may lodge such objection together with the grounds thereof with the City Council (the Urban Planner-Town House, Fifth Floor, Room 516) and the applicant within 14 days of the last publication of this notice (final date for objections is 17 February 2022).

Applicant:

DU TOIT TOWN PLANNING CONSULTANTS P O Box 6871 AUSSPANNPLATZ

WINDHOEK Tel: 061-248010 Email: planner1@dutoitplan. com

Du Toit

GENERAL NOTICE AMENDMENT OF TITLE CONDITIONS

Notices

On behalf of the owner of Erf 103, Okongo Proper, the Okongo Village Council, PLANTEK intends applying to the Oshikoto **Regional Council for:**

 Permanent Closure of Amendment of Title Erf 349, Okongo Proper Conditions of Erf 103, as a Public Open Space. **Okongo Proper from** Amendment of Title "Single Residential" to Conditions of Erf 349, "Undetermined" for a **Okongo Proper from** mixed use development. "Public Open Space" Need and Desirability to "Business" for for Subdivision of Erf commercial development 103 Okongo Proper, Subdivision of Erf 349. into more than eleven **Okongo Proper into 5** undeveloped portions portions and Remainder Subdivision of Erf 103 Okongo Proper, into more Erf 349 Okongo Proper is than eleven undeveloped located in the area next to portions

> Erf 103 Okongo Proper is located in the area next to the Main Road leading to Eenhana. Erf 103 Okongo Proper measures 2, 9008ha in size and is currently vacant.

Our client intends to amend the title conditions in order for Erf 103 Okongo Proper to be planned and developed. The amendment of the title conditions will allow our client to subdivide Erf 103 Okongo Proper into 55 new portions. Onsite parking will be provided in accordance with the Oshikoto Regional Council's requirements.

Take notice that the locality plan of the erf lies for inspection at the Okongo Village Council Offices, during normal office hours.

Further take notice that any person objecting to the proposed use of the land as set out above may lodge such objection together with the grounds thereof, with the Council and with the applicant in writing within 14 days of the last publication of this notice. The last day for objections will be 17th of February 2022.

Plantek P.O Box 9807 Eros plantek@africaonline.

com.na

	com.na			
	Property	Property		
	For Rent	For Rent		
	HOUSE TO RENT	IN KHOMASDAL		
3 Bedroomed house, 2 bathrooms to rent in Khomasdal and garage. Available 1 st of February 2022.				
	N\$6,000.00 water incl with negotia	uded, Deposit required, ble payment.		

Contact Arthur 0812859631

Thursday 3 February 2022 |NEW ERA



Any objection or written submission

in terms of section 28 of the Act in

relation to the applicant must be sent

or delivered to the Secretary of the

Committee to reach the Secretary of the less than 21 days before the date of

the meeting of the Committee at which

the application will be heard.

com

Du Toit

Mr. Silas David

Email: public@

edsnamibia.com

Tel: + 264 61 259 530

candidates will be conducted. Should you not hear from us within two weeks after the closing date, please consider your application unsuccessful

HOUR

Tyre repairs

New tyre fitment

21

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) **FOR EPL 8314**

for be 8 Fourism (MEFT) in terms of the Environmental the made to the Ministry of Environment, Foresty Certificate (ECC) will application and Environmental Regulations (GN 30 of 2012). 2007) that an of Management Act (No.7 hereby given Environmental Clearance Notice is

Project: The area is located about 25 km south of Ruacana, along the C35 road. The proponent intends to explore for copper. Exploration methods may include and geological mapping, geochemical sampling, drilling.

Proponents: Qualicom Investments CC

All interested and affected parties are hereby invited to submit their comments regarding the Contact proposed project on or before 10/02/2022. details for registration and further information: register and

Impala Environmental Consulting Mr. S. Andjamba Email: eia@impalac.com, Tel: 0856630598 IMPALA IMPALA

Mr. Ndaluka Amutenya

- 1. Proposed Position: Environmental Coordinator
- 2. Name of Firm: Impala Environmental Consulting
- 3. Name of Staff: Ndaluka Amutenya
- 4. Nationality: Namibian
- 5. Education: Bachelor of Technology, Chemical Engineering,
 - University of South Africa, 2020
 - Bachelor of Science, Chemistry Major and Geology Minor, University of Namibia, 2012
 - Namibia Senior Secondary Certificate (NSSC), Otjikoto Senior Secondary School, 2008
- 6. Membership of Professional Associations: - None
- 7. Other Training: None.
- 8. Countries of Work Experience: Namibia

9.	Languages:	1 <u>0</u>	Speaking	Readi	ng	Writing	1
		English	Exce	llent	Excelle	nt	Excellent
		Oshiwambo	Exce	llent	Excelle	nt	Excellent

10 Employment Record:

From:	2019 to Present Employer: Positions held:	Impala Environmental Consulting Environmental Assessment Practioner
From:	2015 to 2018 Employer:	Tschudi Copper Mine
	Positions held:	Chemist
From:	2013 to 2015 Employer: Positions held:	Heat Exchange Products (Water Treatment) Water Treatment Specialist

11. Detailed Tasks Assigned	12. Past Projects Undertaken
Project Local ConsultantClient Liaison	Name of assignment or project: Catchment Management Plan for the swakoppoort dam namibia Year: 2020 Location: Okahandja, Namibia. Client: Namwater

 Water Sampling and Reporting Project Management Project Supervision 	Main project features: Catchment Management Plan for the Swakoppoort Dam. Positions held: Local Consultant Activities performed: Water Sampling, logistics, site inspections and report writing.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Environmental Impact Assessment for the Development of a Tantalite Mine, Southern Namibia. Year: 2020 Location: Warmbad, Karas Region Client: Orange River Pegmatite (Pty) Ltd Main project features: Environmental Management Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Participation, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Environmental Impact Assessment for Proposed Development of A Medical Tourism University Hospital In Henties Bay Year: 2020 Location: Henties Bay, Erongo Region Client: Franco Civil Engineeering Cc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Environmental Impact Assessment for the Development of a Marble Mine. Year: 2020 Location: 10 km north of Karibib Client: Sunsand Investments (Pty) Ltd Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Environmental Impact Assessment for Dimension Stone Quarrying Activities on Mining Claims 71816, 71817, 71818, 71819, 71820, 71821, 71822, 71823, 71824, And 71825. Year: 2020 Location: 40 km northwest of Arandis Client: Rockstar Mining cc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.

 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Environmental Impact Assessment for Sand Mining Activities on Mining Claim 72027 Year: 2020 Location: 30 km North of Ongwediva Client: Comitx Investments Group CC Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Environmental Impact Assessment for Mineral Exploration Activities on EPL 6408 Year: 2020 Location: 5 km south of Karibib Client: Antler Gold Inc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Environmental Impact Assessment for Dimension Stone Quarrying Activities on Mining Claims 71896-71900 Year: 2020 Location: 15 km north of Karibib Client: Triple Tas Trading cc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Environmental Impact Assessment for Mineral Exploration on EPL 7930 Year: 2020 Location: 40 km northwest of Karibib Client: Antler Gold Inc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation	Name of assignment or project: Environmental Impact Assessment for Dimension Stone Quarrying Activities on

 Report Writing Project Management Project Supervision 	Mining Claims 72100, 72101, 72102, 72103, 72104, 72105 And 72106 Year: 2020 Location: 40 km northeast of Arandis Client: Tala Mining cc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Environmental Impact Assessment for Mineral Exploration on EPL 5702 Year: 2020 Location: 30 km South of Kamanjab Client: Emor Mining (Pty) Ltd Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Environmental Impact Assessment for the Development of a Lodge in the Daures Conservancy Area. Year: 2019 Location: 50-80 km northwest of UIS Client: !U-#Gab Ams Investment cc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Eia For the Proposed Establishment of a Service Station on Erf 4121, Khorixas Year: 2019 Location: Khorixas Client: Noabeb's Trading Enterprises cc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	Name of assignment or project: Environmental Impact Assessment on dimension stone and industrial mineral quarrying activities on mining claims 71227 and 71228. Year: 2019 Location: 10 km south of Omaruru Client: Hiku Poultry and Trading CC Main project features: Environmental Impact Assessment.

	Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Environmental Impact Assessment for Mineral Exploration Activities on Epl 5818, Central Namibia Year: 2019 Location: 40 km east of Khorixas Client: Gravity Empire Investments (Pty) Ltd Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.
 Project Leader Client Liaison Public Participation Report Writing Project Management Project Supervision 	 Name of assignment or project: Environmental Impact Assessment for Mineral Exploration on Epl 6374 Year: 2019 Location: 50 km South of Opuwo Client: Nami Geological Techniques (Pty) Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.