ENVIRONMENTAL SCOPING AND IMPACT ASSESSMENT

FOR THE PROPOSED MINERALS EXPLORATION FOR BASE & RARE METALS, INDUSTRIAL MINERALS, PRECIOUS METALS, AND SEMI-PRECIOUS STONES WITHIN **EPL 9852 near Tsumeb**

Oshikoto & Otjozondjupa Regions

Date: MAY 2023, Updated: FEBRUARY 2025

Proponent: KDN Geo-Consulting/

Philco One Hundred and Seventy-Three (Pty) Ltd

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Alliance
ENVIRONMENTAL CONSULTANCY

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TABLE OF CONTENTS

TABLE OF FIGURES

LIST OF TABLES

NON-TECHNICAL SUMMARY

Alliance Environmental Consultancy CC (AEC) (herein referred to as the consultant) has been appointed by KDN GeoConsulting CC (herein referred to as the proponent) to act on their behalf in obtaining an Environmental Clearance Certificate (ECC) for the proposed minerals exploration for base & rare metals, industrial minerals, precious metals, and semi-precious stones within EPL9852 near Tsumeb in the Oshikoto and Otjozondjupa regions. The project area is located approximately 16km East of Tsumeb and about 30km North of Grootfontein in the Oshikoto and Otjozondjupa Regions. The site is accessible via the D3039 or D3021district roads from the M75 main road north and east of Tsumeb respectively. The EPL covers an area of approximately 78906 hectares in total. The licence covers portions of farmlands in the area (see **TABLE 1**).

Initially, a scoping assessment was conducted in 2023 for EPL9110 which covers the same area and was associated with the company Philco 173 (Pty) Ltd. Due to insufficient company details, the application for EPL 9110 was rejected by the Ministry of Mines and Energy (MME), and as a result, the Environmental Clearance Certificate (ECC) process was put on hold and later dismissed. However, the applicant has since re-applied for a new Exclusive Prospecting License (EPL 9852) on the same grounds through a different entity, KDN Geo Consulting cc. KDN Geo Consulting the applicant is a partner company to Philco 173 a Namibian registered company that is 95% owned by Cazaly Resources and Cazaly Resources is a public company listed on the Australian Stock Exchange. Hence the scoping report is revised to reflect KDN and EPL 9852, which includes potential changes in the project scope or operational plans. The environmental impacts and mitigation strategies will be reassessed where necessary to ensure compliance with all regulatory requirements. Public participation will be an integral part of this process, and any feedback provided previously will be considered during the revised assessment.

In terms of the Environmental Management Act No.7 of 2007 and the Environmental Impact Assessment (EIA) Regulations of 2012, the project triggers listed activities that cannot be undertaken without an Environmental Clearance Certificate (ECC). An environmental clearance application will be submitted to the Ministry of Mines and Energy (MME) and the Ministry of Environmental, Forestry, and Tourism (MEFT) for approval before the commencement of the anticipated project activities.

The exploration activities will be executed through a series of stages which may involve a desktop review of existing data, regional reconnaissance assessment which includes field-based activities such as soil sampling and analysis, aerial or ground based geophysical surveys (including, but not limited to remote sensing, induced polarization, and magnetics), geological mapping and drilling holes for exploration in selected targeted areas.

This Scoping Report (SR) has been compiled in support of an application for an Environmental Clearance Certificate and it includes an Environmental Impact Assessment section. This report describes the baseline bio-physical and socio-economic environment, legal requirements and it also documents the mitigation and control measures are also carried over into an Environmental Management Plan (EMP) which is bound to this report. The results of this scoping assessment were considered satisfactory and concluded that no further assessment was necessary for this phase of the project.

Generally, the project lies in the areas that receive higher annual rainfall in the country with more than 550mm annually, hence allowing successful intensive agricultural practices. Despite the importance of agriculture in the area, mineral occurrences in the location are considered prominent. The Tsumeb climate is classified as hot semi-arid where the wet season is normally hot and mostly cloudy whilst the dry season is warm, windy, and clear. The hot season lasts for 3.5 months, from September to December, with an average daily high temperature above 31°C. The study area lies within the Karstveld of the Tree-and-shrub Savanna vegetation biome. The vegetation within the study site was found to be dominated by mopane (Colophospermum mopane) and purple pod terminalia (Terminalia prunioides). Plant diversity is estimated at >500 species (Mendelsohn et al, 2002), notwithstanding the fact that terrain and water availability may contribute to local differentiation.

According to the Atlas of Namibia, nationally, the area is regarded as a relative medium - high mammal, reptile, and intermediate amphibian diverse. The soils in this area are broadly categorized to the group of leptosols and defined by a Mollic leptosols dominating soils and lies in the Owambo Groundwater basin. The water table in the area is extremely shallow; past research shows that at some places intersected at only 4m below surface. The basement in the EPL area is made up of Paleoproterozoic granitic gneiss and amphibolites which have been intruded by Mesoproterozoic granite. The company is targeting rare and base metal mineralization of the OML which can be associated with precious metals and industrial mineral mineralization.

The public is informed of the project via four (4) newspaper advertisements, public notices placed around accessible places near the project area including relevant local office notice boards. Notification letters were sent to the affected landowners in consultation with the Ministry of Lands. Communication was also done through email/WhatsApp with some affected landowners. Initially, there was a one-on-one face-to-face interaction held between the proponent with some farmers, however not for the purpose of the EIA process but the project in general. During the revision of the assessment, a one-on-one information sharing meeting was held on the 18th of February 2025 at Abenab Lodge. The concerns and comments received from the public and the local community members will form the basis for this report as well as the Draft EMP.

The identification of potential impacts included impacts that may occur during the planning, operational and decommissioning phases of the project. The following potential impacts on the socio-environment during exploration activities have been identified:

- Dust & Noise
- Health & Safety
- Visual
- Ecological
- Groundwater and surface water
- Heritage & Socio-Economic

The benefits that could arise from the project are:

- Creation of additional employment in the area.
- Generation of export and foreign exchange earnings.
- Skills transfer and training would develop the local workforce.
- Increase in knowledge on the subsurface which then contributes to development, and geoscience research.

Due to the limited scope of the proposed activities and the use of a step-by-step approach in advancing exploration operations, the overall severity of potential environmental impacts of the proposed project activities on the receiving environment will be of low to medium magnitude, temporally and permanent duration, localized extent, and high probability of occurrence. All impacts are provided with mitigation measures in order to minimize or avoid them to acceptable degrees provided that the measures are taken into consideration.

Based on the conclusions of this EIA Report, it is thus recommended that an Environmental Clearance Certificate be provided for the planned project activities. When implementing the proposed program, the Proponent shall consider the following critical requirements:

- The Proponent will negotiate Access Agreements with landowners/authorities.
- The Proponent is responsible for obtaining all additional permits that may be required.
- In accordance with all applicable national rules, the Proponent shall comply with all terms of the EMP.
- In cases where baseline information, national or international guidelines, or mitigation measures have not been supplied or do not adequately address the site-specific project effect, the Proponent must use the precautionary approach/principles.

LIST OF ABBREVIATIONS

AEC	Alliance Environmental Consultancy
BID	Background information Document.
CV	Curriculum Vitae
°C	Degree Celsius
DDH	Diamond Drill Hole
DEA	Directorate of Environmental Affairs
DoF	Directorate of Forestry
DWA	Directorate of Water Affairs
EA	Environmental Assessment
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act No 7 of 2007
EMP	Environmental Management Plan
EPL	Exclusive Prospecting Licence
ESIA	Environmental Scoping and Impact Assessment
HSE	Health Safety and Environment
IAPs	Interested and Affected Parties
IUCN	International Union for Conservation of Nature
km	Kilometers
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment Forestry and Tourism
MME	Ministry of Mines and Energy
MSDS	Material Safety Data Sheet
NBRI	National Botanical Research Institute
OML	Otavi Mountain Land
WHO	World Health Organization
OSHA	The Occupational Safety and Health Administration
NCAA	Namibia Civil Aviation Authority
PPP	Public Participation Process
UNCCD	United Nations Convention to Combat Desertification
RC	Reverse Circulation
SR	Scoping Report
ToR	Terms of Reference

GLOSSARY OF TERMS

Alternatives	A possible course of action, in place of another, that would meet the same purpose and need but which would avoid or minimize negative impacts or enhance project benefits. These can include alternative locations/sites, routes, layouts, processes, designs, schedules and/or inputs. The "no-go" alternative constitutes the 'without project' option and provides a benchmark against which to evaluate changes; development should result in net benefit to society and should avoid undesirable negative impacts.
Competent Authority	A body or person empowered under the local authorities act or Environmental Management Act to enforce the rule of law.
Environment	As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, palaeontological or social values".
Environmental Assessment (EA)	Process of assessment of the effects of a development on the environment.
Environmental Management Plan (EMP)	A working document on environmental and socio-economic mitigation measures, which must be implemented by several responsible parties during all the phases of the proposed project.
Evaluation	The process of ascertaining the relative importance or significance of information, the light of people's values, preference and judgements in order to make a decision.
Hazard	Anything that has the potential to cause damage to life, property and/or the environment. The hazard of a particular material or installation is constant; that is, it would present the same hazard wherever it was present.
Interested and Affected Party (I&AP)	Any person, group of persons or organisation interested in, or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity.
Mitigate	The implementation of practical measures to reduce adverse impacts.
Proponent (Applicant)	Any person who has submitted or intends to submit an application for an authorisation, as legislated by the Environmental Management Act no. 7 of 2007, to undertake an activity or activities identified as a listed activity or listed activities; or in any other notice published by the Minister or Ministry of Environment & Tourism.

Public	Citizens who have diverse cultural, educational, political and socio-economic characteristics. The public is not a homogeneous and unified group of people with a set of agreed common interests and aims. There is no single public. There are a number of publics, some of whom may emerge at any time during the process depending on their particular concerns and the issues involved.
Scoping Process	Process of identifying: issues that will be relevant for consideration of the application; the potential environmental impacts of the proposed activity; and alternatives to the proposed activity that are feasible and reasonable.
Significant Effect/Impact	An impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.
Stakeholder Engagement	The process of engagement between stakeholders (the proponent, authorities and IAPs) during the planning, assessment, implementation and/or management of proposals or activities. The level of stakeholder engagement varies depending on the nature of the proposal or activity as well as the level of commitment by stakeholders to the process. Stakeholder engagement can therefore be described by a spectrum or continuum of increasing levels of engagement in the decision-making process. The term is considered to be more appropriate than the term "public participation".
Stakeholders	A sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. The term therefore includes the proponent, authorities (both the lead authority and other authorities) and all interested and affected parties (I&APs). The principle that environmental consultants and stakeholder engagement practitioners should be independent and unbiased excludes these groups from being considered stakeholders.

1. INTRODUCTION

Alliance Environmental Consultancy CC (AEC) has been appointed by KDN Geo Consulting to act on their behalf in obtaining an Environmental Clearance Certificate (ECC) for the proposed minerals exploration for base & rare metals, industrial minerals, precious metals, and semi-precious stones within EPL9852 near Tsumeb. The potential environmental impacts associated with the proposed exploration activities will be assessed in this report and an Environmental Management Plan will be provided (**Appendix B**).

A specialist heritage site survey was conducted for the project and no further specialist physical, chemical and biological characteristics of the actual site and surroundings were conducted. However, a number of studies have been completed for other projects around the vicinity of the project area. A brief site visit was conducted during the time of the public meeting. This report represents a reference point for comparing any current and future data collected.

Initially, a scoping assessment was conducted in 2023 for EPL9110 which covers the same area and was associated with the company Philco 173 (Pty) Ltd. Due to insufficient company details, the application for EPL 9110 was rejected by the Ministry of Mines and Energy (MME), and as a result, the Environmental Clearance Certificate (ECC) process was put on hold and later dismissed. However, the applicant has since re-applied for a new Exclusive Prospecting License (EPL 9852) on the same grounds through a different entity, KDN Geo Consulting cc. KDN Geo Consulting the applicant is a partner company to Philco 173 a Namibian registered company that is 95% owned by Cazaly Resources and Cazaly Resources is a public company listed on the Australian Stock Exchange.

Hence the scoping report is revised to reflect KDN and EPL 9852, which includes potential changes in the project scope or operational plans. The environmental impacts and mitigation strategies will be reassessed were necessary to ensure compliance with all regulatory requirements. Public participation will be an integral part of this process, and any feedback provided previously will be considered during the revised assessment.

1.1. ABOUT THE CONSULTANT

Alliance Environmental Consultancy CC (also referred to as AEC) is a dynamic Namibian independent environmental consulting firm that provides cutting-edge environmental management services. We develop and implement solutions for a variety of projects by combining solid scientific expertise, legislative understanding, and fieldwork to uphold environmental safety and management standards throughout a projects' development, operational and decommissioning phases. We assess and monitor the social and environmental impacts for projects related to minerals exploration and mining,

transport, construction, energy, biomass, tourism, and other sectors. Our wide range of capabilities, disciplines, and services are fundamentally based on proactively delivering advice and solutions with the outlook of sustainability.

Our expertise in environmental management for mining projects has been taking dominance in the company. We have been involved in the compilation of Environmental Impact Assessments (EIA) and Environmental Management Plans (EMP) for activities on Exclusive Prospecting Licences (EPLs), Mining Claims and Mining Licenses as lead practitioners and assistant practitioners. We are also involved in projects operational environmental compliance monitoring.

Our reputation is built on our unique techniques, experience, and exceptional client service. We strive to provide high-quality, cost-effective, and responsive environmental solutions for our clients by taking pride and staying current with environmental trends and regulatory changes. The consultant was assisted by Mr. Lester Hacker who was the PPP facilitator, Mr. Charles Adam and Ms. Helena Elago who are interns in the company. The detailed CV of the team is presented in **Appendix A**.

AEC is in no way a direct affiliate of the applicant and has no personal or financial interest in the proposed project other than reasonable compensation for the professional services provided.

1.2. ABOUT THE PROPONENT

KDN Geo Consulting CC (KDN) is a 100% Namibian women-owned and -operated closed corporation specialising geological consultancy services for the minerals sector. Their expertise covers a wide range of resources, including base metals, industrial minerals, precious metals and rare metals.

KDN's mission centres on supporting responsible resource exploration and development within Namibia. They achieve this by adhering to rigorous environmental and social governance standards, prioritizing minimal ecological impact, active community engagement, and strict adherence to Namibian regulations. A team of seasoned geoscientists who blend local insights with international best practices, forms the core of KDN's operations, ensuring all projects align with sustainable development goals.

KDN offers a comprehensive suite of services tailored to the needs of exploration and mining projects. These include geological consulting, mapping, geochemistry, exploration support, permitting assistance (including prospecting and mining licenses), reporting, desktop studies, and GIS and information technology solutions. Their diverse client base includes both private sector companies (particularly in the exploration industry) and public sector organizations.

KDN's women-led structure reflects their strong commitment to diversity and empowerment in Namibia's resource sector. They operate with transparency and accountability, building strong

stakeholder relationships, and championing ethical and environmental conscious resource exploration.

Philco 173 (Pty) Ltd is a Namibian registered company that is 95% owned by Cazaly Resources and 5% owned by KDN Geo Consulting. Cazaly Resources is a public company listed on the Australian Stock Exchange exploring for gold, base metals and critical minerals in Australia, Namibia and Canada. Cazaly was first listed on the Australian Stock Exchange in 2003 and is established as a reputable industry member with a commendable and responsible record of developing resource projects for shareholders. The company carries out business activities in a responsible and respectful manner, engaging all stakeholders and operating in a way to minimize impact on the environment and local communities.

1.3. PROJECT LOCALITY

The project area is located approximately 16km East of Tsumeb and about 30km North of Grootfontein in the Oshikoto and Otjozondjupa Regions. The site is accessible via the D3039 or D3021district roads from the M75 main road north and east of Tsumeb respectively (**FIGURE 1 & FIGURE 2**). The EPL covers approximately an area of 78906 hectares in total. The licence covers portions of farmlands (**TABLE 1**), and **FIGURE 3** renders a map of the EPL area relative to the farms.

The land - use of the larger area includes commercial agriculture, livestock farming, and freehold tourism. The Namibian Farms shapefile used was obtained from the Ministry of Agriculture, Water, and Land Reform (MAWLR), July 2023 version. Through the public PPP meetings some farmers raised concerns that some farm names are not presented on the maps. AEC takes note of that and will advise the proponent to consider adopting the correct farm names and boundaries in consultation with the landowners and the MAWLR.

TABLE 1 – FARMS OVERLAPPING EPL 9852

FARM NO.	FARM NAME						
540	VANADIA	**826**	OULAP	**706**	CLEVELAND	**1232**	N/A
541	WINDPOORT	**827**	KLIPRAND	**707**	ABENAB	**1233**	OLD SMITHFIELD
542	KARUCHAS REST	**828**	DON TSEBEB	**714**	DULUTH	**1278**	CUXHAVEN
659	AARHUIS	**829**	EMMANUEL	**756**	GROSSILMENAU	**1342**	BRISBANE
660	ACCRA	**830**	AANDVELD	**825**	EXCELSIOR	**1343**	GROOT BOSTON
662	ADEN	**831**	SWERWERSTROOM	**698**	DEAL	**837**	PANORAMA
669	BIRKENHEAD	**832**	AANDRUS	**700**	DETROIT	**837**	ETHANIE
670	BOMBAY	**833**	CALAIS	**701**	DOVER	**837**	BETHANIE
676	MOOIDRAAI	**834**	MIDDELIN	**702**	DEVON PORT	**838**	ELANDSVLAK

694	COLOMBO	**835**	UILKRAAL	**703**	DRONTHEIM	**1147**	STARNBERG
695	COOKTOWN	**835**	BRAKKIES	**705**	CHRISTIANA	**1149**	NAWIB
696	CORK	**836**	EBENEZER				

The proponent applied for the EPL area through the MME on 07 December 2023. The proponent was granted a notice of preparedness to grant the EPL on the 23rd September 024. The physical EPL is pending approval subject to submission of an ECC to the MME, after it's issued by the MEFT. This environmental scoping and impact assessment will form part of the ECC application that will be submitted to the MEFT. The **FIGURE *1*** below shows the locality of the EPL as displayed on the Namibia Mining Cadastral Portal that can be accessed through this link https://portals.landfolio.com/namibia/. The corner coordinates of the EPL are provided in **TABLE 2**.

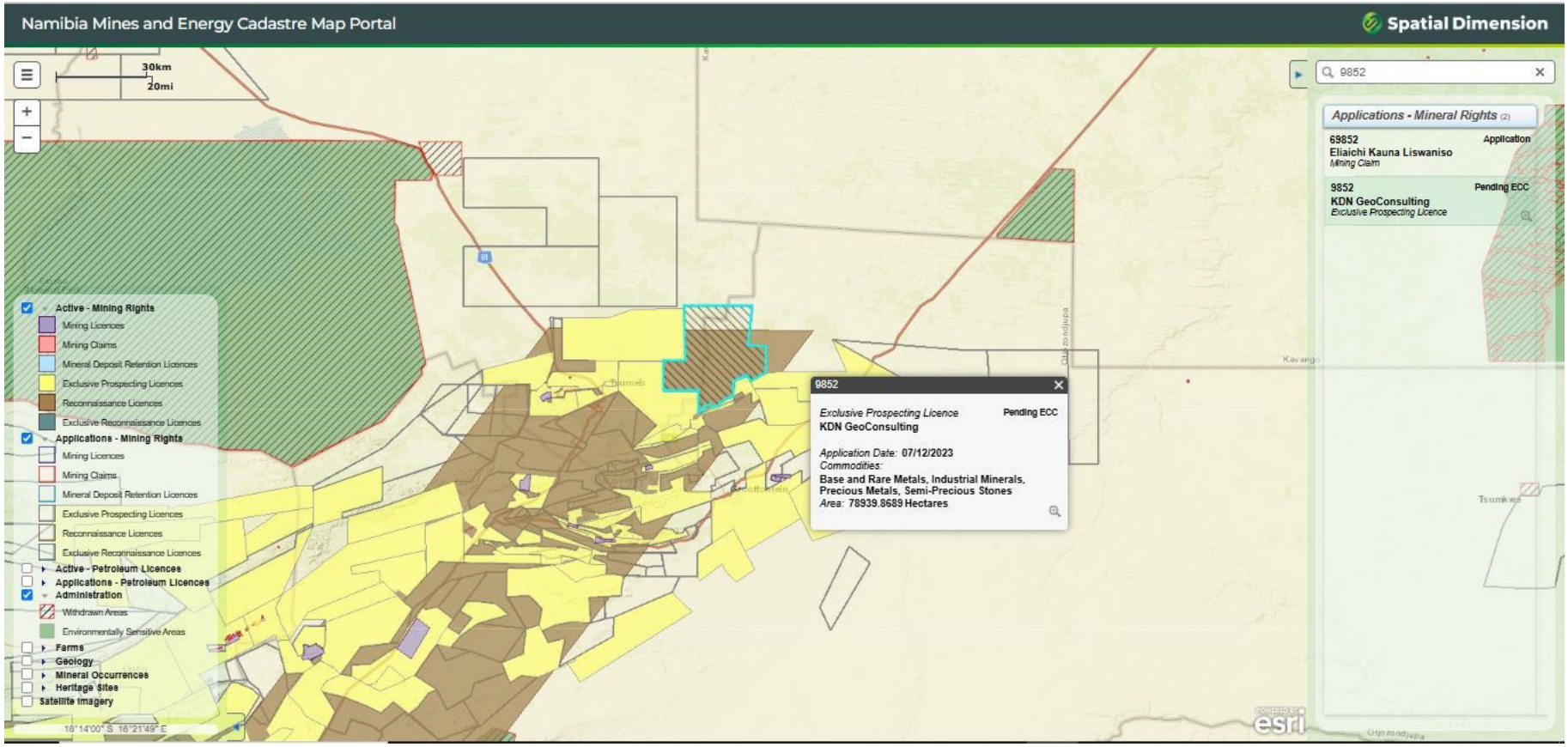


FIGURE 1 - LOCALITY DISPLAY ON THE MINING CADASTRE PORTAL (MME,2023) *https://portals.landfolio.com/namibia/*.

TABLE 2 - CORNER COORDINATES FOR THE EPL

ID	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE		LATITUDE	LONGITUDE
1	-18.999317	17.957203	**10**	-19.280379	18.0926100	**19**	-19.256063	17.889912
2	-18.999608	18.176300	**11**	-19.292246	18.0764460	**20**	-19.164218	17.890282
3	-19.117619	18.162620	**12**	-19.299281	18.0703590	**21**	-19.164617	17.961144
4	-19.122401	18.220082	**13**	-19.307541	18.0459310			
5	-19.201562	18.219816	**14**	-19.297030	18.0422500			
6	-19.227700	18.170696	**15**	-19.304863	18.0184910			
7	-19.209812	18.159018	**16**	-19.315642	18.0224300			
8	-19.226063	18.116775	**17**	-19.321305	18.0028860			
9	-19.272577	18.1163400	**18**	-19.256065	18.002716			

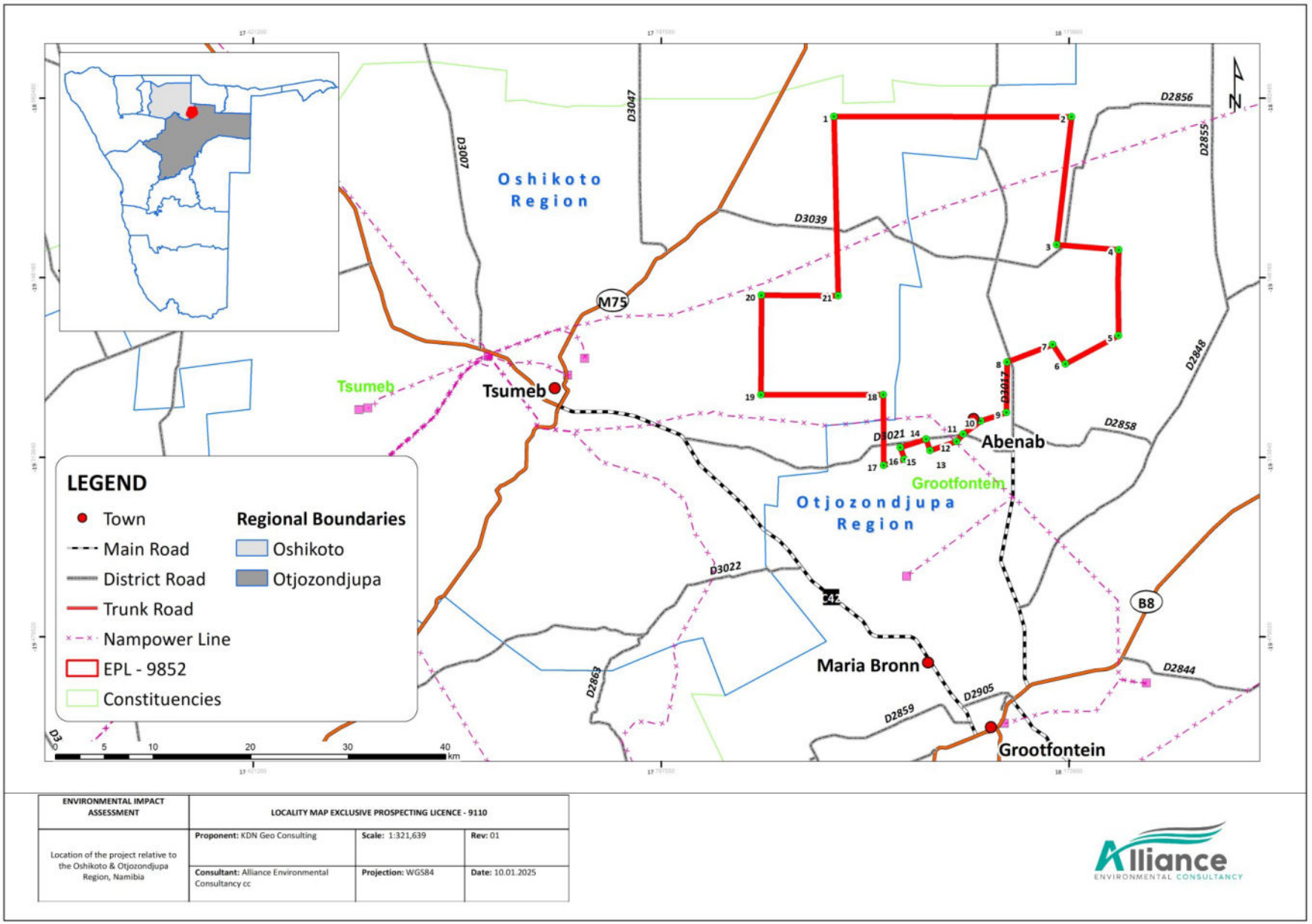


FIGURE 2 – LOCALITY MAP AND INFRASTRUCTURE OF THE PROPOSED PROJECT

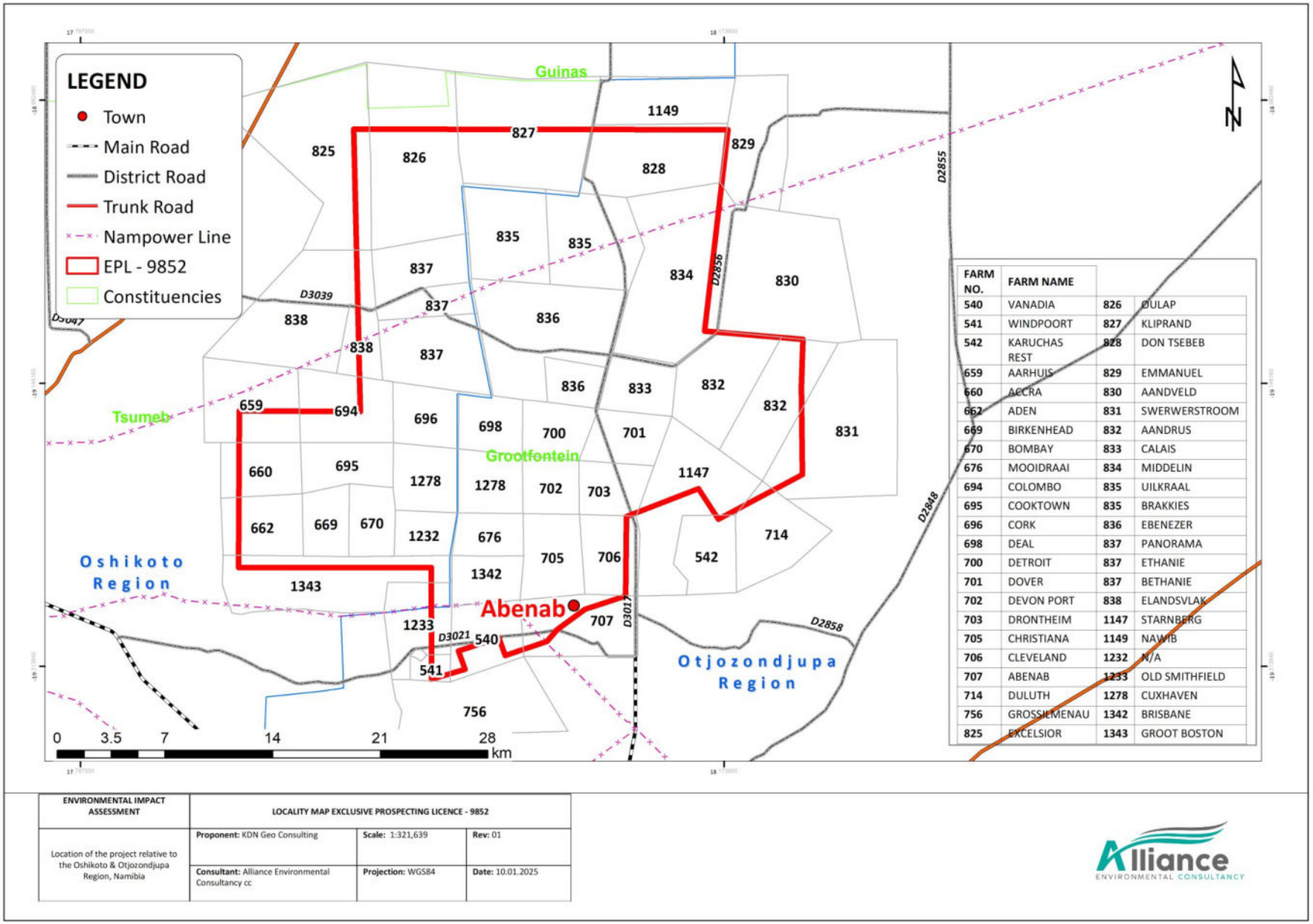


FIGURE 3 - FARMS OVERLAPPING THE EPL AREA

1.4. PURPOSE OF THE DOCUMENT

In terms of the Environmental Management Act No.7 of 2007 and the Environmental Impact Assessment (EIA) Regulations of 2012, the project triggers listed activities that cannot be undertaken without an Environmental Clearance Certificate (ECC). An environmental clearance application will be submitted to the Ministry of Mines and Energy (MME) as the competent authority and the Ministry of Environment, Forestry, and Tourism (MEFT) as the issuing authority for the decision process to issue an environmental clearance certificate to the proponent, before the commencement of the anticipated project activities.

The environmental scoping assessment report aims to address the following:

i. Identification of potential positive and negative environmental impacts.
ii. Evaluation of the nature and extent of potential environmental impacts
iii. Identify a range of management actions that could mitigate the potential impacts.
iv. Consult relevant stakeholders regarding the proposed development.
v. Provide sufficient information to the MEFT to make an informed decision regarding the proposed project.

The provision of the listed activities are as follows:

MINING AND QUARRYING ACTIVITIES

3.1 The construction of facilities for any process or activities which requires a license, right, or other forms of authorization, and the renewal of a license, right, or any other form of authorization in terms of Minerals (Prospecting and Mining Act), 1992.

3.2 Other forms of mining or extraction of natural resources whether regulated by law or not.

3.3 Resource extraction, manipulation, conservation, and related activities.

FORESTRY ACTIVITIES

4.1 The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorization in term of the Forest Act, 2001 (Act No. 12 of 2001) or any other law.

WATER RESOURCE DEVELOPMENT

8.1 The abstraction of ground or surface water for industrial or commercial purposes.

HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE

9.2 Any process or activity which requires a permit, Licence or other forms of authorization, or the modification of or changes to existing facilities for any process or activity which requires amendment of an existing permit, Licence or authorization or which requires a new permit, Licence or authorization in terms of a governing the generation or release of emissions, pollution, effluent or waste.

9.4 The storage and handling of dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.

1.5. PROJECT MOTIVATION/RATIONALE

Successful mineral exploration leads to discoveries of economic mineralization that can be mined. Mining activities in Namibia are one of the biggest contributors to the country's revenue and mining is one of the largest economic sectors in the country. The following are some of the possible benefits of the proposed project activities:

- Contributions to annual license fees to the government through the MME.
- Payments of lease agreements and services rendered.
- Provision of contractual employment opportunities.
- Increase in knowledge on the subsurface which then contributes to development, and geoscience research.
- Contribute to the socio-economic development of the local area and region,
- Direct capital investment into Oshikoto and Otjozondjupa Regions and the nation through taxes on goods purchases as required for exploration activities.

Should an economic mineral resource be found on the license, it could provide social and economic development within the region and the country. In the case the company finds economic mineralization and wants to proceed to mining, the company would need to apply for a Mining License (ML) with the MME, and a separate, comprehensive (full) Environmental Impact Assessment (EIA) process would be undertaken at that stage.

1.6. SCOPING ASSESSMENT LIMITATIONS

AEC assumes that all information and technical data for the Project relevant to the scope of the environmental scoping procedure provided by the Proponent, collected by AEC specialists and during the public participation process are true and correct, and that all necessary information has been disclosed.

This report is compiled as a scoping assessment and in addition a Heritage/Archeological specialist study was done to complement the assessment. This is because the consultants believed that the magnitude of the proposed activities and the existence of similar projects in the vicinity can be used

to sufficiently address these potential impacts from the proposed project under the impact assessment section of the SR and mitigation measures provided accordingly. Reviewed literature, and professional experience from similar studies in the Regions and elsewhere were also considered when addressing these effects.

The specific information used in this document is as provided by the Proponent, consultants experience and relevant literature reviewed/research. This report has been compiled on the assumption that there will be no substantial changes to the proposed project activities or to the affected biophysical and social environment between the time of compiling this document and execution of the project, that could potentially influence the findings of this document. Where project activities alter or new impacts are identified, the EMP (**Appendix B**) should be updated to cater for the new impacts and mitigation measures should be provided therein.

1.7. TERMS OF REFERENCE

The Terms of Reference (ToR) for the proposed project are based on the requirements set out by the Environmental Management Act (EMA) (2007) and its EIA Regulations (2012). The scope of this assessment is to identify and evaluate potential environmental impacts emanating from the proposed activity. Data has been compiled by making use of literature, and the information provided by the proponent, communication with relevant stakeholders, specialist study, and the consultant's experience.

The process covered the following steps, as divided into the sections below. Each section describes what was undertaken. It is important to note that the project was initiated in late December 2022 by Philco 173 under EPL 9110 before KDN Geo Consulting under EPL9852. Therefore, the dates will be presented as from the start of the initial timelines and incorporate the updating/amendment dates.

1.7.1. SCREENING PHASE (DECEMBER 2022 – JANUARY 2023 and again in November/December 2024)

This involves project initiation discussions with the proponent to finalize the TOR for the study. The consultants identify potential environmental aspects and potential impacts that may be relevant to the project. Once the screening phase is concluded the scoping process is initiated.

1.7.2. SCOPING PHASE (FEBRUARY TO MARCH 2023 and again January/February 2025)

This phase constitutes the identification of further potential environmental issues associated with the proposed project, a description of the receiving environment, assessment of potential environmental impacts, and develop management and mitigation measures.

Other activities that can be conducted at this phase include site visits and identification as well as communication with potential affected parties and the compilation of Scoping Report and EMP. The reports are then distributed to Interested and Affected Parties (I&APs) for comment. This phase is further discussed under **Chapter 2**.

1.7.3. LEGAL FRAMEWORK

All legislation, policies and guidelines that had reference to the proposed project are listed under **Chapter 5**. The activities for which clearance is required for the project were extracted from the EMA Regulations. As per legal requirements, any exploration activity requires the Environmental Commissioner within the Ministry of Environment Forestry & Tourism to render an Environmental Clearance Certificate (ECC) in terms of the Environmental Management Act, No 7 of 2007 (EMA).

1.7.4. AIM OF THE REPORT

The aim of this report is to provide details on the proposed mineral exploration activities, their technical, operational, and possible decommissioning and closure, to enable decision makers to make an informed decision regarding the project from an environmental perspective.

1.7.5. PUBLIC PARTICIPATION PROCESS (DECEMBER 2022 TO MARCH 2023 and again in December 2024 – March 2025)

Inform I&APs and relevant authorities of the details of the proposed development and provide them with a reasonable opportunity to participate during the process.

Stakeholder engagement through the public consultation process is described in a later section of this report (**Chapter 7**).

1.7.6. DESCRIPTION OF THE ENVIRONMENT

The 'environment' is defined in the Environmental Assessment Policy and Environmental Management Act as "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values".

Relevant environmental data was compiled by making use of secondary information from past research in the area, from recent specialist studies and stakeholder consultation. The consultants/EAP identified existing environmental (both ecological and socio-economic) conditions of the receiving environment in order to determine environmental sensitivities. Information regarding the biophysical and socio-cultural environment was sourced from a number of studies previously done in and around the study area. Furthermore heritage specialist studies were conducted as part of this assessment Please refer to **Chapter 6** and the document reference list for the sources of information consulted.

1.7.7. IMPACT ASSESSMENT

The scoping and assessment process aims to guide and promote sustainable and responsible development and not to discourage development. Potential environmental impacts and associated social impacts were identified and addressed in the report (**Chapter 9**). The EAP has assessed likely positive and negative impacts, including environmental and social impacts at the local and regional (Oshikoto and Otjozondjupa Regions) and national (Namibia) levels using the Hacking Assessment Method.

Possible enhancement measures have been listed for those positive impacts while prevention, mitigation and rehabilitation measures have been provided for negative impacts. The environmental assessment was conducted to comply with Namibia's Environmental Management Act, the

requirements of Local Authorities and all other legal requirements applicable to the development and Namibia.

The assessment process involved merging various information streams into a description of the environment and the proposed project. If the environmental commissioner finds that the assessment of potential impacts and the proposed mitigation measures proposed in this report, are acceptable, an ECC may be awarded to the proponent.

1.7.8. ENVIROMENTAL MANAGEMENT PLAN (EMP)

This task involved the drafting of a standalone document that outlined the management, monitoring and mitigation measures that will avoid, minimize and/or mitigate potentially negative impacts. The ECC should refer to the EMP contained in **Appendix B,** and the conditions stipulated therein, thus rendering the EMP a legally binding document to which the proponent will adhere. The EMP is a live document and can be amended where project activities alter, or new impacts are identified throughout the life of the project.

2. THE EIA APPROACH AND METHODOLOGY

The EIA and EMP methodology applied for this project will take into account the provisions of the Environmental Impact Assessment (EIA) Regulations, 2012, and the Environmental Management Act (EMA) Act No. 7 of 2007. The process followed is detailed below and in **FIGURE 4.**

PHASE 1 – ENVIRONMENTAL SCREENING

Project initiation and registration with the Competent Authority

- This involves meeting with the client and discussing timeframes, logistics and project descriptions.
- Basic desktop site baseline analysis and compilation of a Background Information Document (BID)
- Project registration with Department of Environmental Affairs (DEA) to be done on the EIA online portal system.
- After the project is registered, the environmental commissioner advises whether a full EIA or scoping assessment is required for the project; for this project a scoping assessment is required. Other required documents are outlined on the online system.

PHASE 2: ENVIRONMENTAL SCOPING ASSESSMENT INCLUDING PUBLIC PARTICIPATION PROCESS (PPP)

- An extensive desktop baseline study and review for the area will be undertaken using remote sensing to identify and describe potential sites that are likely to be impacted by the project before on ground site verification.
- The consultants may conduct a site visit during this stage to form a basis for the assessment and determine the real sensitivity of the surrounding biophysical and socio-economic environment.
- The information obtained during the site visit (if done) will be supplemented by a literature review and will be used by the environmental consultant to: (a) Determine the actual/real risks associated with the project activities, (b) Provide practical mitigation measures to minimize the risks; and (c) Make recommendations for further studies, should it be required.

Public Consultation Process and stakeholder engagement (21 Days)

- Public consultation is an important stage of the EIA process as it ensures public involvement. The public consultation process begins with newspaper advertisement (Minimum two (2) local newspapers twice for two consecutive weeks), site notices to be placed at easily accessible places around the project area/town, radio announcements, when necessary, through respective constituency offices (especially in remote areas where newspapers might not reach on time) and then public meetings when critical. This is being done to provide the public with

the opportunity to be involved in the process, provide their views and input/recommendations regarding the proposed activities in the area.

- The EAP approaches different organizations and government institutions to gather information on potential stakeholders' contact details.
- During this stage, potential stakeholders (local governments, constituency offices, farmers etc.) are identified and made aware of the project as advised in writing. Invitation letters and or emails will be sent to the identified I&APs. All I&APs contact details will be collected for future communications related to the project progress.
- The Background Information Document (BID) prepared in phase 1 will be shared with all identified and registered I&APs during this period. The BID usually contains summarized project information such as the project description of activities, project motivation, potential impacts, and EIA process followed. This document will be shared via email or delivered in hard copy to the relevant/applicable parties. Other social media platforms such as WhatsApp will also be utilized in this case. During this stage, face to face public engagement and information sharing could be hosted.
- All comments, inputs, issues and/ or concerns raised by I&APs during the process will be recorded for consideration in the environmental assessment report and development of the EMP.

PHASE 3: ENVIRONMENTAL REPORTING – ENVIRONMENTAL SCOPING ASSESSMENT REPORT (ESAR) AND ENVIRONMENTAL MANAGEMENT PLAN (EMP)

- This stage will include data reduction and analysis using appropriate techniques to produce suitable project results for interpretation and discussion. This stage will entail consolidation of the findings in the form of a report that can be presented to the client for review and comments. An EMP will be drafted to mitigate and manage all impacts identified in the scoping report.
- After approval of the documents by the Client, the draft ESAR and EMP will be prepared for circulation to the public (I&APs) for comments over a period of 7-14 days.
- All comments are consolidated and included in the reports and the ESAR and EMP are finalized for submission to the competent authority MME and issuing authority MEFT.
- The registered and identified I&APs will be informed that the final documents have been submitted to the authorities for decision making and that for any further comments, they can directly contact the DEA. Furthermore, the DEA provides another 14 days period for public participation on the online portal.

PHASE 4: FOLLOW-UP WITH THE COMPETENT AUTHORITY UNTIL FEEDBACK IS GRANTED

Should the DEA require further information, the EAP will be alerted.

FIGURE 4: BELOW PROVIDES A SIMPLIFIED EIA PROCESS FLOWCHART

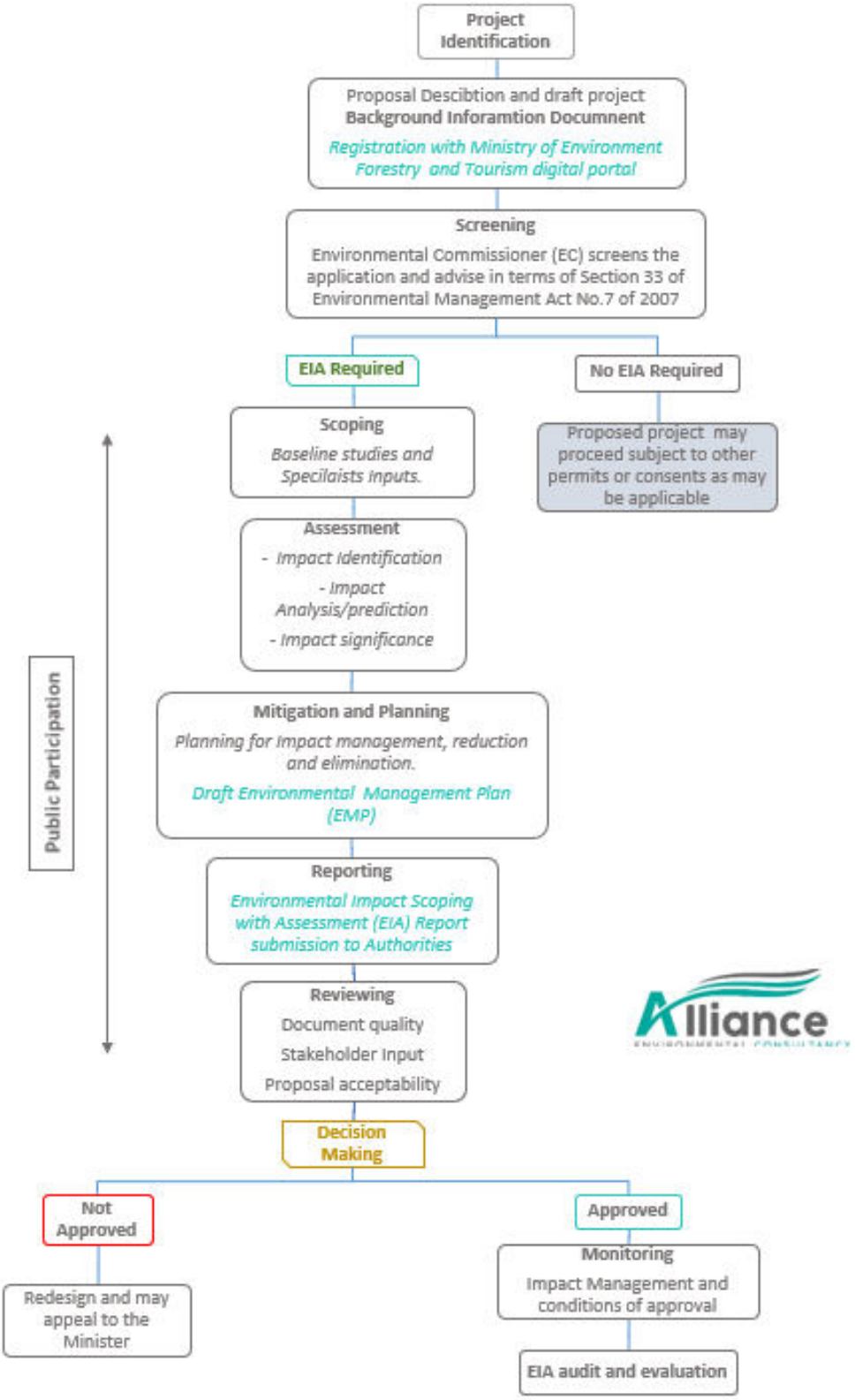


FIGURE 4 - EIA FLOW CHART BY AEC

3. PROJECT DESCRIPTION

3.1. PROJECT PLAN AND ACTIVITIES

The proponent wishes to conduct an exploration program on EPL 9852 for base & rare metals, industrial minerals, precious metals, and semi-precious stones. Once the license is granted by MME, it will be valid for three years with possible renewal after this period. The commencement of the project is planned as soon as the environmental clearance certificate and physical EPL license have been issued. An outline of the possible exploration phases is detailed below:

3.1.1. PLANNING PHASE

This phase includes acquisition of necessary permits, and getting agreements in place with various states, parastatal agencies, as well as surface landowners/land custodians.

Possible parties that may be consulted include

- Ministry of Mines and Energy (MME)
- Ministry of Environment Forestry & Tourism (MEFT, this application)
- Respective Regional Councils
- Ministry of Agriculture, Water & Land Reform (MAWLR)
- National Heritage Council of Namibia (NHCN)
- Landowners/ Land custodians

3.1.2. INITIATION/PRE-OPERATIONAL PHASE

i. Accommodation

There are various accommodation options being considered. Options include existing field camps or farmhouses with basic infrastructure within the boundaries of the EPL or in the surrounding areas/towns, providing accommodation for approximately 5 to 10 people (depending on the labour needs). Alternatively, workers can commute from the nearby towns/settlements, or any accommodation places that may be deemed sufficient by the proponent. Any new infrastructure will be erected with the permission of the land custodians. The accommodation area will be demarcated to limit the movement of equipment and personnel beyond the footprint of the camp area, and also to limit the movement of animals onto the site from the surrounding area.

ii. Access

The proponent will negotiate land access with the landowners. Regarding access roads on the tenements, existing access roads will be utilized. If new access roads are required, these will be established in consultation with the landowners or custodians. The selective clearing of vegetation

(trees) in areas designated for prospecting will be minimal. In mineral exploration land is often only cleared at areas where drilling operations will be conducted, or to service advanced exploration, or where the camping area will be erected. When lateral expansion is required the removal of vegetation will be done in consultation with the landowners/custodians and with the Directorate of Forestry that issues the relevant permits before any trees can be cleared.

iii. Waste management

Solid waste will be removed from the site and taken to the nearest registered dumpsite. When exploration is concentrated in one area for an extended period (such as during drilling activities), portable toilets will be used at these work sites. In the case of remote camps toilets may be established where the staff reside, with septic tanks to be emptied regularly using a tanker truck which removes the sewage and takes it to the municipal sewage works. For a longer-term field camp arrangement, a French drain system could be devised and constructed.

3.1.3. OPERATIONAL SUPPORT SERVICES

i. Water supply

Water supply sources being considered are either.

- Ground water extraction; and
- NamWater

The consultant and proponent recognize the water sensitivity in the Oshikoto and Otjozundjupa region. The volume of water used will depend on the phase of the exploration program. Water needs in the initial phases of mineral exploration will be minimal for drinking and ablution facilities. If diamond drilling is required to test a target then larger volumes may be required. Water can be sourced from the nearest NamWater supply scheme or from one of the surrounding neighbors or community boreholes and then be trucked to the exploration sites and camps.

For any additional water needs ground water extraction will be considered, which can be kept to minimal levels. A borehole can be sunk to augment supply, or an existing borehole can be utilized with the owner's permission. However, for this option groundwater exploration would need to be undertaken followed by the required permit application process with the Directorate of Water Affairs (DWA).

ii. Power supply

The proponent will evaluate what electrical supplies are readily available to the project. Generators may be used in remote locations, and a small field of photovoltaic panels is also envisaged for power generation in the medium term in semi-permanent camps and during long-term work. No infrastructure

development to get electricity from the national grid has been planned. All mobile equipment is diesel/petrol driven and self-propelled. Static equipment will use electricity generated by diesel generators.

iii. Onsite fuel storage

Due to distance from town hubs to exploration and accommodation sites, the proponent may store fuel (diesel and/or petrol) at a safe location on site, for use during exploration activities. Approximately 200-400 litres of diesel will be stored in a bunded fuel tank system, conveniently placed and accessible for deliveries. This facility will be of modern construction, either double-skinned or 110% bunded to ensure spills are prevented or contained.

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

Although unlikely during the mineral exploration phases, should the company need to store more than 600 litres of fuel at its exploration sites in the rural areas, storage permission will be sought from the MME.

3.1.4. PROSPECTING/OPERATIONAL PHASE ACTIVITIES

The company is targeting rare and base metal mineralization of the Otavi Mountain Land (OML) which can be associated with precious metals and industrial minerals. More than 620 mineral occurrences are known in the area, with the majority being located in the Gauss Formation of the Abenab Subgroup and in the Elandshoek Formation of the Tsumeb Subgroup.

The exploration team is envisioned to consist of up to fifteen (15) skilled, semi-skilled, and non-skilled workers. Initially the company may start with 2-3 exploration geologists and 2-3 field technicians. Additional support like logistics, laborers, cooks etc., will likely be needed, and employment will ramp up as needed for each phase of the exploration program. Laborers will be sourced from the communities nearest to the projects. Field operations may operate up to 10 hours a day (7am to 5pm) for up to seven days per week, or as needed. The personnel will be transported to and from the operational site by company transport.

i. Vehicle, machinery, and associated equipment

At the initial stages of mineral exploration, the company will use 4x4 vehicles. Heavy machinery will be used from drilling stages. The number of vehicles will depend on the work program. The main equipment types that will be used will include 4X4 bakkies, drill rigs (Reverse Circulation (RC) or Diamond Drill Hole (DDH)), excavators and front-end loaders to be used if overburden topsoil removal

is required, water tankers for the camp site and support drilling operations, portable geophysical equipment, sampling equipment (bags, sieves, spades etc.). The equipment will be stored in designated areas at the exploration sites, camps, or accommodations.

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

ii. Desktop studies including; geological mapping.

Initially the proponent would gather all existing data for the areas of interest. This may be done by purchasing data such as historical assessment reports, geochemical data, and high-resolution geophysical data from the MME/GSN. The existing data forms the basis of desktop studies, evaluation of areas of interest for mineral exploration, and target identification. Once the licences are granted, one of the initial stages in mineral exploration on the EPL would be to ground truth known mineral occurrences and conduct geological mapping at targets generated from the desktop studies. The information gathered from the various field campaigns are fed into the existing databases towards improving exploration tools and mineralization models for successful exploration. This stage of mineral exploration is non-invasive.

To map the sub-surface, in potentially mineralized areas, the company may consider trenching. Trenches may be dug / excavated to a depth of about 3m or less. The material from the trenches is put on the sides of the trenches for backfilling of these trenches once they are no longer needed. If the trenches are needed for a longer period they may be fenced off. The trenches are ramped at one end to allow escape of any animals that may fall into the trench.

iii. Geophysical survey

The geophysical surveys include the collection of information of the substrata, by ground and airborne techniques. Detection is through sensors such as radar, magnetics and electromagnetics to detect any mineralization in the area. Ground geophysical surveys would be carried out using sensors mounted on vehicles or carried by hand **FIGURE 5.** Aerial geophysical surveys would be carried out using sensors mounted on low flying aircraft or unmanned drones **FIGURE 6.** The airborne geophysical technique tries to measure electrical conductivity and magnetic variations of the ground using measuring instruments suspended underneath a helicopter, drone or aircraft. During the survey, the magnetometer continuously records the conductivity or total magnetic field intensity immediately beneath the magnetometer. Where necessary, permits will be obtained from Namibia Civil Aviation Authority (NCAA) to support the airborne geophysical surveys. Geophysical methods used in mineral exploration are generally non-intrusive, with little to no impact on the receiving environment.

FIGURE 5 - IILUSTRATIVE IMAGE OF A GROUND-BASED GEOPHYSICAL SURVEY WITH MAGNETOMETER (Photo taken from: https://irsl.ss.ncu.edu.tw/media/course/CI/SIO_9.pdf

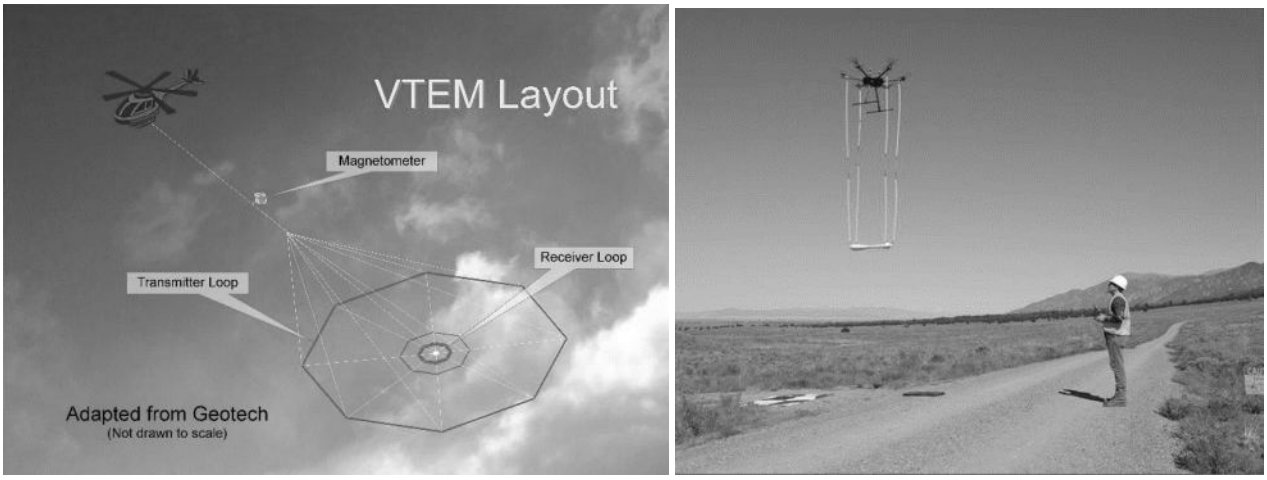


FIGURE 6 - ILLUSTRATIVE IMAGES OF AIRBORNE GEOPHYSICAL TECHNIQUES (Photo credits: https://www.geologyforinvestors.com/airborne-geophysical-methods/)

Prior communication should be made with the relevant landowners and general public before surveys are conducted. This is to impart information on what is taking place as some may not understand why a helicopter or drone is flying back and forth (predetermined grid lines), and what the attached equipment does. Also, depending on the height being flown, the noise from airborne surveys may present temporary discomfort to people and animals.

iv. Geochemical sampling

This stage incorporates the collection and geochemical analyses of material such as rocks, drill core or drill chips, and soil **FIGURE 7.** Rock samples are collected during ground-truthing/reconnaissance and geological mapping activities.

Soil samples are collected at depths of at least 20 - 30cm, by firstly removing the upper surface of the soil that will be filled back once a sample is collected. The samples are collected into bags of approximately 500grams to 1kg. Sampling might be carried out teams of up to 8 personnel, each consisting of a field technician or geologist and local field assistants.

The samples collected during field campaigns are sent to an analytical laboratory (as preferred by the proponent) for geochemical trace element and whole rock analysis, mineralogy, or for heavy mineral separates. This is to determine if the desired mineralization is present, and in which quantities. Mineralogical studies on samples collected will run consecutively to geochemical sampling to determine host mineralogy and any complications that may arise later in the geo-metallurgy process.

FIGURE 7 - EXAMPLES OF GEOCHEMICAL SAMPLING OF SOILS (Photo taken from: https://www.fishereng.com/post/b-understanding-geotechnical-investigations)

v. Exploration Drilling

Exploration drilling **(FIGURE 8)** is the process of sampling rock below surface, where it is suspected that there may be mineralization. Drill targets are generated from the review and interpretation of results in combination of desktop studies, geological mapping, geophysical surveys, and geochemical analysis. It may be necessary to clear tracks and drill platforms/pads in preparation for drilling activities. Efforts will be made to limit or minimize the amount of clearing of trees and shrubs for drilling. For these purposes tree removal and clearing permits can be applied for at the Department of Forestry (DoF), at MEFT.

Initially, drilling would be localized on discrete targets identified through the different stages of mineral exploration, and if the results are positive then more drilling would be planned.

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

reserve. Storage of the drill products (rock chips and/or drill core) may be near the exploration site, the exploration camp, a storage warehouse in proximity to the project, or rental of a warehouse near the project. Additional work may be required on the drill products, such as XRF analysis, core cutting and sampling, which may be conducted at the storage facility.

FIGURE 8 - ILLUSTRATIVE IMAGE OF A DRILLING OPERATION (Photo credits: https://www.juniorminingnetwork.com/junior-miner-news/press-releases/394-tsx-venture/sgn/100723-scorpio-gold-commences-exploration-drilling-program-on-manhattan-mine-nevada.html)

During Diamond drilling a solid tubular rock known as core is extracted **(FIGURE 9).** The cored rock represents the lithology/rocks below ground, and is extracted from depth, for examination at surface. The key technology of diamond drilling is the diamond bit. It is composed of industrial diamonds set into a soft metallic matrix. The drill produces a "core" which is logged, photographed and which can be split longitudinally for sampling. Half of the split core is assayed while the other half is stored for future uses and as a reference

FIGURE 9 - IILUSTRATIVE IMAGE OF A DIAMOND DRILL CORE (Photo credits: https://www.istockphoto.com/photos/core-drilling)

RC Drilling uses a pneumatic hammer, which drives a rotating tungsten-steel bit. The technique produces an uncontaminated large volume sample, which is comprised of rock chips (**FIGURE 10**). RC is relatively quick and cheap compared to Diamond Drilling. In mineral exploration RC drilling is commonly used in uncomplicated geology at shallow levels, or for infill drilling, at a much higher density or narrower spacing for confidence in the mineralization and to allow extrapolations of the mineralised host rock units.

FIGURE 10 - IILUSTRATIVE IMAGE OF RC DRILLING ROCK CHIPS (Photo taken from: https://www.marketindex.com.au/news/aldoros-pegmatite-intersections-at-murchison-look-encouraging)

Drilling platforms/pads in RC and diamond drilling, are approximately 25 m x 15 m. This space is needed for the machinery and working areas of the drill teams. When the machines are on, for safety, the drilling site is off-limits to those who are not part of the exploration team.

The drill results once received and the drilling phase is completed, the results are evaluated, and a decision will be taken whether to continue to the next phase of mineral exploration on the EPL. If exploration drilling results are positive the information will be used to determine follow-up drilling phases which may lead to resource definition and modelling

vi. Advanced prospecting/exploration

In the advanced stages of mineral exploration, and if an economic mineral deposit is found on the EPL, larger amounts of rock sample material may be required for performing processing trials and for metallurgical testing programs. Ground conditions and geotechnical parameters also need to be established for planning and costing purposes to move to the next phases of the project.

Bulk sampling for metallurgical tests and processing trials will be done to complement the material obtained during drilling. A bulk sample can be collected via trenching if the weathering of the rocks is

not too deep, or from drilling with larger bit sizes, or from localized blasting. The size of the sample required depends on the nature of mineralization as observed from drilling and sampling.

vii. Pre-feasibility and feasibility studies

If the advanced exploration activities yield positive results the project will move to feasible evaluation. A feasibility study is conducted to determine whether the defined mineral resource on a certain project can be mined economically.

In addition to the data previously gathered on the project, this stage may require additional detailed and site-specific resource and geotechnical drilling, bulk sampling, laboratory and metallurgical testing, and possibly trial mining.

viii. Mining Licence Application or End of exploration Program

If a feasible mineral resource is discovered within the EPL, the proponent may decide to move the project forward to mining and apply for a mining license with the MME. A separate and detailed environmental impact assessment study will be undertaken. The proponent can also decide to carry out the detailed EIA as part of the feasibility studies. The EIA will comprise of detailed site-specific specialists' studies of different aspects of the project. These studies may include the following impact assessments; socio-economic, hydrology and geohydrology, archaeology, air quality, traffic, biodiversity (fauna & flora), visual and soil etc.

Should there be no discovery of economic mineralization on the EPL during the various stages of mineral exploration/prospecting, the proponent can decide at any stage to discontinue the activities planned on the EPL, rehabilitate the areas disturbed during their exploration, and relinquish the EPL back to the MME.

3.1.5. DECOMMISSIONING AND FINAL REHABILITATION (IF NO DISCOVERY IS MADE)

In accordance with the EMA, the proponent is required to have funds available and allocated for rehabilitation. This fund should continually be available during the period of the active operation and be sufficient to cover all decommissioning activities when required. Decommissioning activities will include the removal of any temporary infrastructure, rehabilitation of roads and other linear infrastructure, drill sites and bulk sampling pits. This is done to reduce the effects of soil erosion and to re-establish normal ecosystem functionality so as to rehabilitate the environment.

Functional water boreholes (if any were drilled by the proponent) and solar panels could be donated to the local communities. Rehabilitation efforts can be expected to be low if economic mineralization is not found on the EPL, because the mineral exploration activities would have had minimal impact on the environment or may have been limited to non-invasive activities, if there was no justification from surface observations to trench or drill test any of the targets.

4. ALTERNATIVES CONSIDERED

In terms of the Environmental Management Act, No. 7 of 2007 and EIA Regulations, alternatives considered should be analyzed to identify different means of meeting the general purpose and requirements of the activity, which may include alternatives to, location, type of activity, design and layout, technology and operation aspects. This is to ensure that during the design evolution and decision-making process, potential environmental impacts, costs, and technical feasibility have been considered, which leads to the best option(s) being identified. The alternatives considered are tabulated below:

ALTERNATIVE	JUSTIFICATION
Site/Location	**Minerals Occurrence Location**- Several economic deposits are known to exist in various locations of Namibia, some of which have been explored and mined by various companies throughout the years. However, economic mineral occurrences are highly localized and therefore primarily determined by the site geology. In this specific EPL, the proponent proposes to explore and potentially mine for base & rare metals, precious metals, industrial minerals, and precious stones. The proponent has evaluated the geology of the country and identified areas where there are potential lithologies that may host the metals of interest. They thus decided to apply for EPLs in these areas of interest throughout the country. Some of the EPLs were rejected due to environmental sensitivity known by the GRN in those areas.
Infrastructure	**Access Roads –** The access routes to target areas and around the EPL have not been determined yet, however the proponent will use the existing external and internal road networks during the various phases of the project, should any new access be created, it will be done in consultation with the landowners/land custodians as well as MEFT. At a later stage in the exploration, the Proponent may need to upgrade some of the tracks to ensure that they are fit to accommodate project vehicles, such as rig bearing trucks, and may erect temporary road signs for the duration of the project. **Equipment and infrastructure –** The equipment and infrastructure options considered by the proponent are deemed sufficient at this stage of the project and were chosen based on cost, the environment, as well as accuracy in terms of required mineral information. However, in the world of revolving technology, the proponent may opt to employ other improved and environmentally safe to use equipment/infrastructure, in future and if deemed necessary, to maximize the project output.
Water supply	The proponent will use existing water infrastructure. Water may be brought to site from the nearest town/settlement and stored in tanks on site for basic water needs (drinking, cooking, ablutions etc). The alternative is to use existing boreholes or do a hydro search to drill a new borehole. Extra water needs may be supplemented with borehole water or other alternatives to be sought when the need arises.

Power supply	The first alternative is to use existing power supply sources in the area. If there are no existing power infrastructure in the area, power may be sourced from a diesel generator. Another alternative is to Install photovoltaic solar panels.

5.1. NO GO ALTERNATIVES

The no-go option to not conduct mineral exploration on the license will deprive the proponent of an opportunity to pursue its business and to strive for mineral resource discoveries, it will also constitute an opportunity loss for the Namibian economy and overall wealth of the Namibian people. As such, it will also deny other key stakeholders an opportunity to earn a much-needed income. The local authority and central government agencies will not earn revenue through rates and taxes. Considering the above losses, the "no-action/go" alternative was not considered a viable option in the interest of the directly affected community and the proponent.

5. LEGAL REQUIREMENTS

5.1. LIST OF APPLICABLE LAWS AND LEGISLATIONS

A list of legislation that is applicable to the proposed project is presented in **TABLE 3.**

TABLE 3 - LIST OF APPLICABLE NATIONAL LAWS AND LEGISLATIONS

LAW	SUMMARY DESCRIPTION
Constitution of the Republic of Namibia, 1990	The Constitution is the supreme law in Namibia, providing for the establishment of the main organs of state (the Executive, the Legislature, and the Judiciary) as well as guaranteeing various fundamental rights and freedoms. Provisions relating to the environment are contained in Chapter 11, article 95, which is entitled "promotion of the Welfare of the People". This article states that the Republic of Namibia 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 living natural resources on a sustainable basis for all Namibians, both present and future. The Government shall provide measures against the dumping or recycling of foreign nuclear waste on Namibian territory."
Minerals (Prospecting and Mining) Act, No. 33 of 1992 *Ministry of Mines and Energy*	Minerals (Prospecting and Mining) Act 33 of 1992 and special regulations Sections 50, 52, 54, 57 and 130 of this Act sets out provisions for environmental management for activities arising from mineral, Exploration, and exploitation of mineral resources
The Minerals Policy of Namibia, 2003 *Ministry of Mines and Energy*	This policy sets out guiding principles and directions while communicating the values of the Namibian people in pursuit of the development of the mining and mineral resources beneficiation sector.
Charter for Sustainable and Broad-Based Economic and Social Transformation in the Namibian Mining Sector 2014 – 2020 (The Namibian Mining charter)	This charter aims to facilitate meaningful participation of historically deprived Namibians in the mineral exploration, mining and mineral beneficiation industry. It has effectively been developed as an instrument to effect transformation and sets specific targets for mineral license holders and Operators of mineral processing facilities active in Namibia.

Environmental Management Act (2007) *Ministry of Environment, Forestry and Tourism (MEFT)*	The purpose of the Act is to give effect to Article 95(l) and 91(c) of the Namibian Constitution by establishing general principles for the management of the environment and natural resources. - to promote the coordinated and integrated management of the environment to give statutory effect to Namibia's Environmental Assessment Policy. - to enable the Minister of Environment, Forestry and Tourism to give effect to Namibia's obligations under international conventions. - In terms of the legislation, it will be possible to exercise control over certain listed development activities and activities within defined sensitive areas. The listed activities in sensitive areas require an Environmental Assessment to be completed before a decision to permit development can be taken. The legislation describes the circumstances requiring environmental assessments. - Activities listed as per the provisions of the Act will require environmental assessment unless the Ministry of Environment, Forestry and Tourism, in consultation with the relevant Competent Authority, determines otherwise and approves the exception. The provision of listed activities is listed under **section 1.4.**
Environmental Assessment Policy (1994) *Ministry of Environment, Forestry and Tourism (MEFT)*	This policy aims to promote sustainable development and economic growth while protecting the environment in the long term by requiring environmental assessment prior to undertaking of certain activities. Annexure B of the policy contains a schedule of activities that may have significant detrimental effects on the environment, and which require authorisation prior to undertaking.
Water Act 54 of 1956 Water Resources Management Act (Act No. 11 of 2013) Ministry of Agriculture, Water and Land reform (MAWLR)	This Act provides for the control, conservation, and use of water for domestic, agricultural, urban, and industrial purposes. In terms of Section 6, there is no right of ownership in public water and its control and use is regulated and provided for in the Act. In accordance with the Act, the proposed project must ensure that mechanisms are implemented to prevent water pollution. water permits will also be required to abstract groundwater as well as for "water works."
Forest Act 12 of 2001 - Minister of Environment, Forestry and Tourism (MEFT)	The Act 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 the control and management of forest fires.

	Section 22 requires a permit for the cutting, destruction or removal of vegetation that are classified under rare and or protected species; clearing the vegetation on more than 15 hectares on any piece of land or several pieces of land situated in the same locality which has predominantly woody vegetation; or cut or remove more than 500 cubic metres of forest produce from any piece of land in a period of one year. Should the above be unavoidable, it will be necessary to obtain a permit from the Ministry. Minimal vegetation clearing will be required to support the project activities. The necessary permit should be obtained from the MEFT, where the application should satisfy that the cutting and removal of vegetation will not interfere with the conservation of soil, water, or forest resources.
Hazardous Substance Ordinance 14 of 1974 *Ministry of Health and Social Services (MoHSS)*	Provisions for hazardous waste are amended in this act as it provides "for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances. to provide for the prohibition and control of the importation, sale, use, operation, application, modification, disposal or dumping of such substance and to provide for matters connected therewith."
Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001) *Ministry of Mines and Energy*	Regulation 3(2)(b) states that "No person shall possess or store any fuel except under authority of a licence or a certificate, excluding a person who possesses or stores such fuel in a quantity of 600 litres or less in any container kept at a place outside a local authority area. The project will require diesel storage for supplying power, and machinery operation. The necessary permits should be acquired in this regard.
Atmospheric Pollution Prevention Ordinance 11 of 1976. Ministry of Health and Social Services (MoHSS) WHO guideline on noise levels. Occupational Safety and Health	This regulation sets out principles for the prevention of the pollution of the atmosphere and for matters incidental thereto. Part III of the Act sets out regulations pertaining to atmospheric pollution by smoke. While preventative measures for dust atmospheric pollution are outlined in Part IV and Part V outlines provisions for Atmospheric pollution by gases emitted by vehicles. The proposed prospecting activities would not entail the discharge of large quantities of gaseous pollutants into air but may result in increased noise levels, dust generation, destruction of in situ soil structure during such operations.

Administration (OSHA) guidelines	
The Nature Conservation Ordinance 4 of 1975, Ministry of Environment, Forestry and Tourism (MEFT)	Care must be taken to ensure that protected plant species and the eggs of protected, and game bird species are not disturbed or destroyed. If such destruction or disturbance is inevitable, a permit must be obtained in this regard from the Minister of Environment, Forestry and Tourism. Should the Proponent operate a nursery to propagate indigenous plant species for rehabilitation purposes, a permit will be required.
Soil Conservation Act, No. 76 of 1969 and the Soil Conservation Amendment Act, No. 38 of 1971	The act makes provision for the prevention and control of soil erosion and the protection, improvement and conservation of soil and vegetation
Labour Act, 1992, Act No. 6 of 1992 as amended in the Labour Act, 2007 (Act No. 11 of 2007 *Ministry of Labour, Industrial Relations, and Employment Creation (MLIREC)*	The Labour Act gives effect to the constitutional commitment of Article 95 (11), to promote and maintain the welfare of the people. This Act is aimed at establishing a comprehensive labour law for all employees. to entrench fundamental labour rights and protections. to regulate basic terms and conditions of employment. To ensure the health, safety and welfare of employees under which provisions are made in chapter 4. Chapter 5 of the act improvises on the protection of employees from unfair labour practice.
Affirmative Action (Employment) Act No. 29 of 1998	Fair employment practice
Regional Councils Act (Act No. 22 of 1992)	The Regional Councils Act legislates the establishment of Regional Councils that are responsible for the planning and coordination of regional policies and development. The main objective of this Act is to initiate, supervise, manage, and evaluate development in the regions.
Namibia's Environmental Assessment Policy for Sustainable Development and Environmental Conservation of 1995	Prescribes Environmental Impact Assessments for any developments with potential negative impacts on the Environment

Nature Conservation Amendment Act 5 of 1996	To provide for an economically based system of sustainable management and utilization of game in communal areas
Draft Pollution and Waste Management Bill (1999)	This Bill serves to regulate and prevent the discharge of pollutants to air and water as well as providing for general waste management. The Bill repeals the Atmospheric Pollution Prevention Ordinance (11 of 1976). In terms of water pollution, it will be illegal to discharge of, or dispose of, pollutants into any watercourse without a Water Pollution Licence (apart from certain accepted discharges). Similarly, an Air Quality Licence will be required for any pollution discharged to air above a certain threshold. The Bill also provides for noise, dust or odour control that may be considered a nuisance. The Bill advocates for duty of care with respect to waste management affecting humans and the environment and calls for a waste management licence for any activity relating to waste or hazardous waste management.
Convention on Desertification of 1994	Combating desertification and mitigation of the effects of drought
National Heritage Act 27 of 2004 *Ministry of Education, Arts and Culture (MEAC)*	This Act provides provisions for the protection and conservation of places and objects of heritage significance and the registration of such places and objects. The proposed activities will ensure that if any archaeological or paleontological objects, as described in the Act, are found during the implementation of the activities, such a find shall be reported to the Ministry immediately. If necessary, the relevant permits must be obtained before disturbing or destroying any heritage

TABLE 4 - INTERNATIONAL LAW TO WHICH NAMIBIA IS A SIGNATORY

INTERNATIONAL LAW TO WHICH NAMIBIA IS A SIGNATORY
Vienna Convention for the Protection of the Ozone Layer - 1985
Montreal Protocol on substances that deplete the Ozone Layer - 1987
The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal – 1989
The Rotterdam convention on the Prior Informed Consent Procedure for Certain Hazardous chemicals and Pesticides in International Trade – 1989
The Rio de Janeiro Convention on Biological Diversity - 1992
United Nations Framework Convention on Climate Change - 1992

5.2. KEY REGULATORS / COMPETENT AUTHORITIES

The regulatory authorities responsible for environmental protection and management in relation to the proposed project, including their role in regulating environmental protection are listed in **TABLE *5***.

TABLE 5 - AGENCIES REGULATING ENVIRONMENTAL PROTECTION IN NAMIBIA.

AGENCY	RESPONSIBILITY
Ministry of Environment, Forestry and Tourism (MEFT)	Issuance of Environmental Clearance Certificate (ECC) based on the review and approval of the Environmental Assessments (EA) reports comprising Environmental Scoping and Environmental Management Plan (EMP) prepared in accordance with the Environmental Management Act (2007) and the Environmental Impact Assessment Regulations, 2012
Ministry of Mines and Energy (MME)	Competent authority. The national legislation governing minerals prospecting and mining activities in Namibia fall within the jurisdiction of the Ministry of Mines and Energy (MME) as the Competent Authority (CA) responsible for granting authorisations. 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.

5.3. PERMITS

Some permits related to exploration activities are listed in **TABLE 6**.

TABLE 6 - APPLICABLE PERMITS TO THE PROPOSED PROJECT

PERMITS/CERTIFICATES	ACTIVITY	VALIDITY
PERMITS/CERTIFICATES		
Exclusive Prospecting Licence - MME	Issued once the mining commissioner is satisfied if all requirements outlined in the preparedness to grant are met.	3- Years
Environmental Clearance Certificate - MEFT	Issued once the environmental commissioner is satisfied with the EMP submitted in support of the project. The EMP will be the legally binding document between the MEFT and the proponent.	3-Years
Fuel Consumer Installation Certificate - (MME)	Regulates the amount of fuel product in possession	Temporary/ permanent
Notice of intention to drill – (MME)	This is submitted to the mining commissioner prior to drilling operation.	Valid for the drilling period in notice
Water abstraction permit – (DWA)	This is applied for at the Directorate of Water Affairs to outline the borehole locations and the quantities of water you intend to abstract and for what sort of activities	Permit dependent

6. BASELINE ENVIRONMENT/ STUDY AREA

This section lists the most important environmental characteristics of the study area. This provides a baseline where changes that occur as a result of the proposed project can be measured. The data was gathered through desktop analysis of existing data and through spatial analysis and from site observations. The spatial data used for mapping under this section was obtained from various sources including the https://digitalnamibia.nsa.org.na/ of Namibia Statistics Agency (NSA) as well as the MME minerals cadastre portal https://maps.landfolio.com/Namibia/ and The Environmental Information Services website at http://www.the-eis.com/ . An Archeological site specialist studies was conducted for this project.

6.1. SITE AND SURROUNDING LAND USE

Generally, Tsumeb and Grootfontein lie in the areas that receive higher annual rainfall in the country with more than 550mm annually, hence allowing successful intensive animal and crop agricultural practices. The EPL overlaps with more than 35 commercial farmlands and/or farm portions which is the predominant land use. There exist orchard fields around the southern and southeastern portions of the EPL and it is evident on the spatial earth maps. Despite the importance of agriculture in the area, minerals occurrence in the surrounding is considered prominent. The importance of proactive communication between the proponent, farmers, and owners of nearby properties is emphasized. Excellent relationships should be maintained throughout the life of the project.

The area is known for its high base metal potential, mainly copper, lead, zinc, silver and vanadium, explaining why these are the metals that will be prospected for, as well as other critical battery minerals. Prospecting and exploration activities, which include termite mound sampling and drilling, have been conducted around the larger area in the past by Ongopolo Mining & Processing Ltd in ~1980-1990 and Anglo American between 2005 and 2012.

6.2. CLIMATE

6.2.1. TEMPERATURE

The climate data presented in this report refers to Tsumeb which is the nearest town to the project area with historical weather data available online. The Tsumeb climate is classified as hot semi-arid climate where the wet season is normally hot and mostly cloudy whilst the dry season is warm, windy, and clear (EIS, 2023). The hot season lasts for 3.5 months, from September to December, with an average daily high temperature above 31°C. The hottest month of the year in Tsumeb is October, with an average high of 33°C and low of 20°C (**FIGURE 11**). The cool season lasts for 2.1 months, from May to August, with an average high temperature below 26°C. The coldest month of the year in Tsumeb is July, with an average low of 9°C and high of 25°C (**FIGURE *11***).

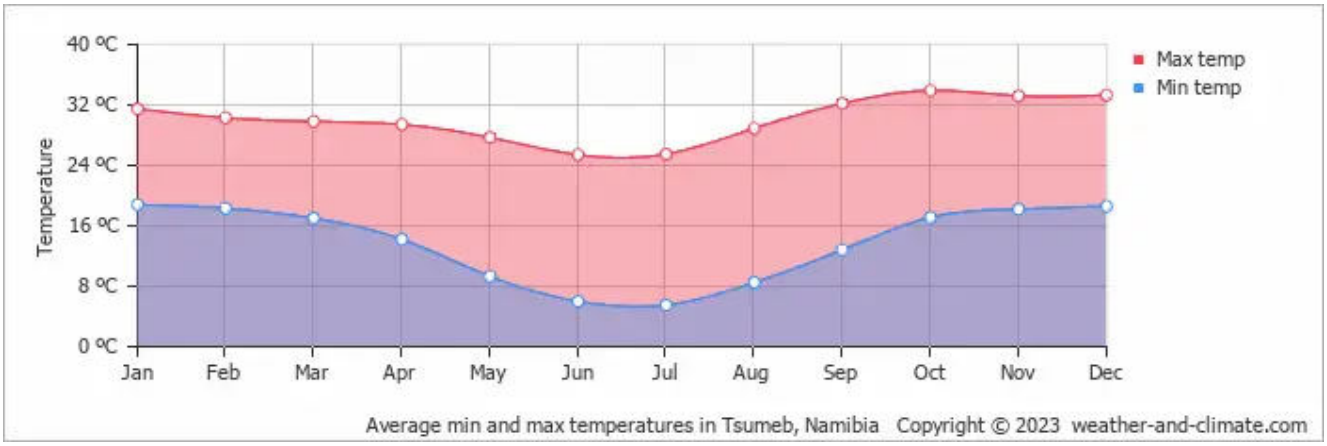


FIGURE 11 - AVERAGE HIGH AND LOW TEMPERATURE FOR TSUMEB (WWW.WEATHER-AND-CLIMATE.COM)

6.2.2. RAINFALL

Tsumeb receives an average precipitation of 528mm per year. Only 8% of the Namibian land surface receives more than approximately 500mm of annual rainfall. This rainfall is caused by the orographic uplift over the Grootfontein-Otavi-Tsumeb hills. Most rain is seen in January and February, the dry period in the area starts from May up to September. On average, January is the wettest month with 133 mm of precipitation whilst July is the driest month with 0 mm of precipitation (**FIGURE 12**).

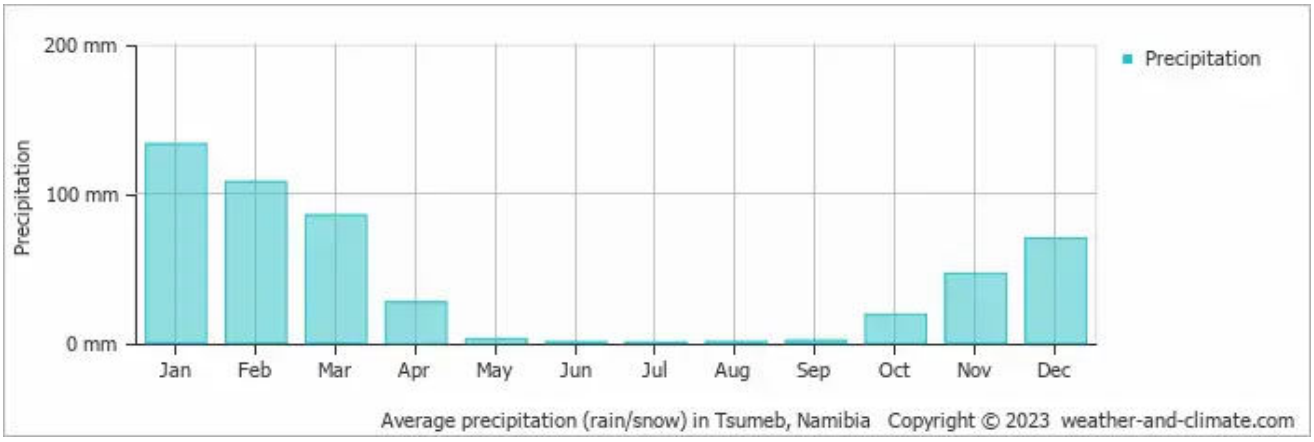


FIGURE 12 - AVARAGE RAINFALL IN TSUMEB (WWW.WEATHER-AND-CLIMATE.COM)

6.2.3. CLOUD COVER

The average percentage of cloud cover near the Tsumeb surrounding area fluctuates seasonally over the course of the year. The clearer part of the year in the EPL's surrounding area begins around May and lasts for about 5 months, ending around September. The clearest month of the year is August. The cloudier part of the year begins around October and lasts for 7 months, ending around April, the same period has the highest humidity with April being the most. The cloudiest month of the year in Tsumeb is January (**FIGURE *13***) (www.worldweatheronline.com).

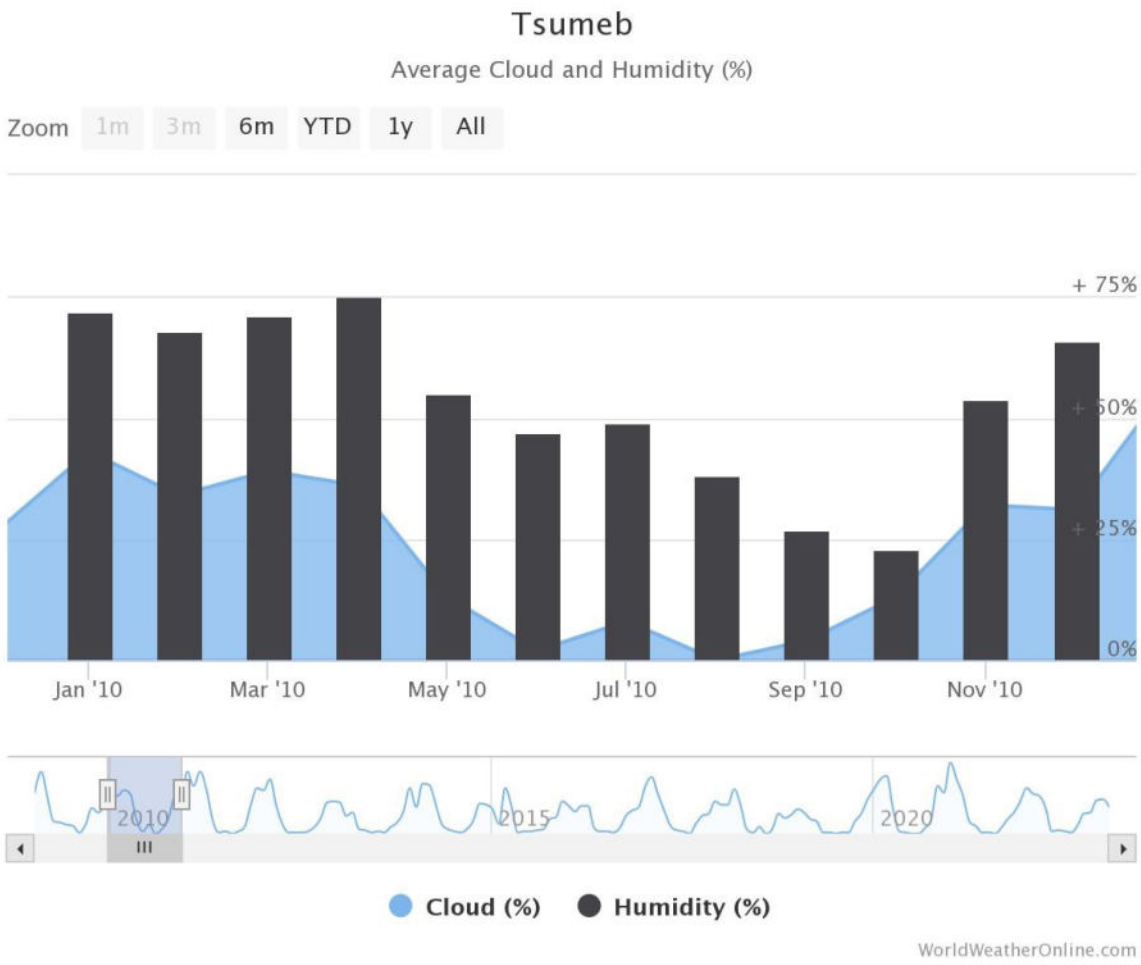


FIGURE 13 - AVERAGE CLOUD AND HUMIDITY (WORDWEATHERONLINE.COM)

6.2.4. SUNSHINE AND WIND

The number of hours of sunshine refers to the time when the sun is visible. That is, without any obstruction of visibility by clouds, fog, or mountains. The sun hours data is reference to Grootfontein town which has the closest recording station to the EPL area. July is the sunniest month in the area whilst in April, the sun shines the least (**FIGURE 14**).

Wind experienced at any locality is highly reliant on local geography plus possibly other factors (direction, hourly and speed). The maximum wind speed recorded for areas around Tsumeb in FIGURE *15* below ranges from 1.0 – 5.9 mps eastern wind with an average of 1.4mph (Iowa weather, 2023).

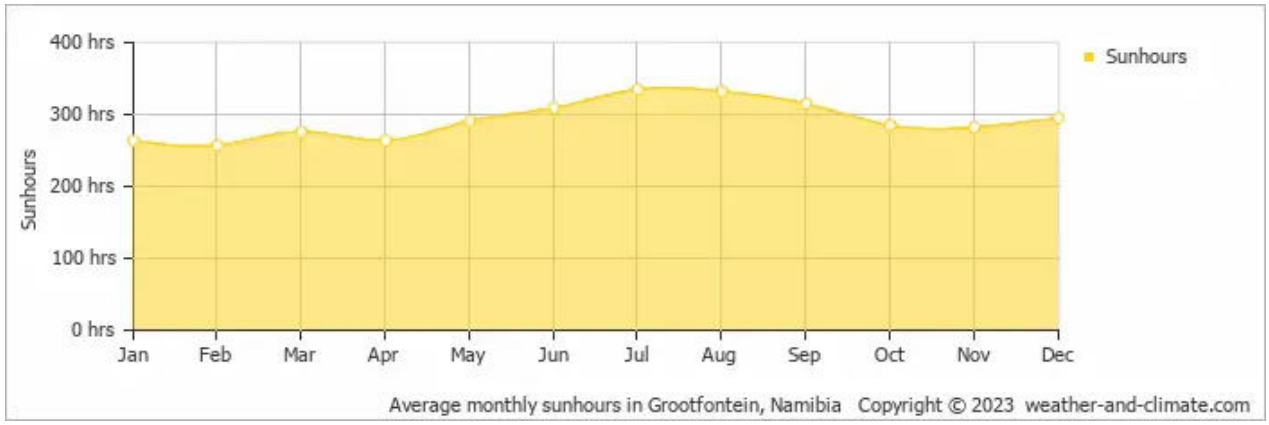


FIGURE 14 - AVERAGE MONTHLY SUN HOURS IN GROOTFONTEIN (www.weathr-and-climate.com)

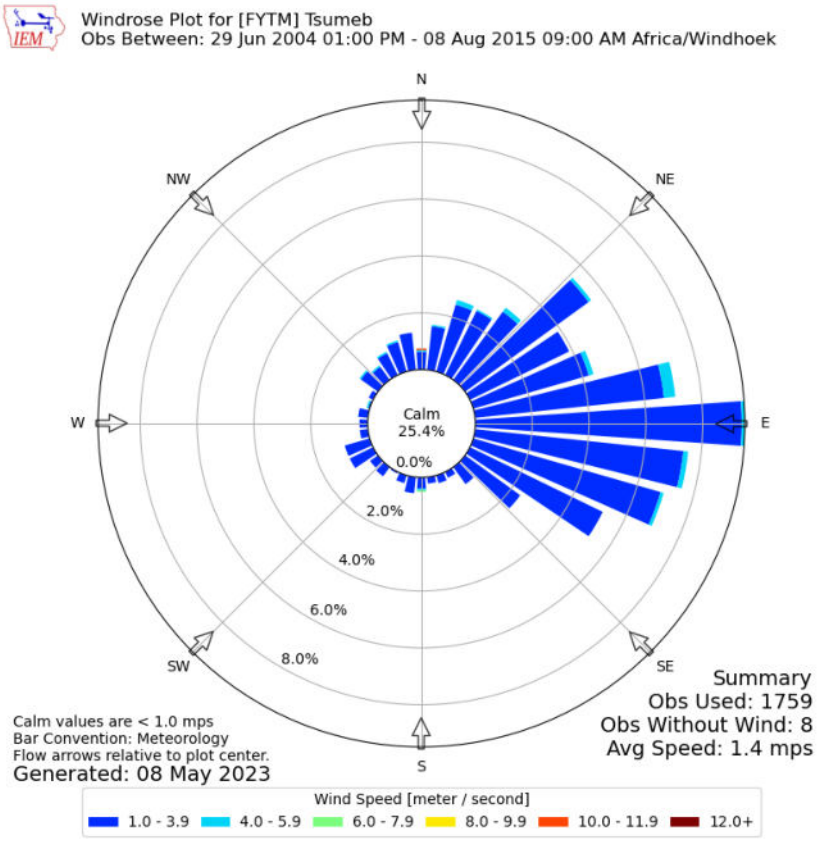


FIGURE 15 - WINDROSE FOR TSUMEB FROM 2004 TO AUGUST 2015 (Iowa weather, 2023)

6.3. BIOPHYSICAL ENVIRONMENT

6.3.1. FLORA

The majority of this part of Namibia is arid to semi-arid. Hence livestock farming is the most prevalent land use activity, while dryland and irrigated crop agriculture are minor sectors in the Namibian economy (Strohbach, 2000). Namibia's vegetation is strongly influenced by rainfall patterns. The study area lies within the Karstveld of the Tree-and-shrub Savanna vegetation biome refer to
. The most dominant species in the area is the mopane tree (*Colophospermum mopane*). There exist Orchard fields in the EPL area which could be off limits from exploration. Bush encroachment can be seen in large areas of the Oshikoto and Otjozondjupa Regions, primarily because of prolonged periods of cattle selective grazing. Several farms' carrying capacities have been reduced as a result of the invasion, and as a result, the invader bush is handled in several methods, one of which being the manufacturing of charcoal for export. The sickle bush or *Dichrostachys cinerea* is the main problem species (Enviro Dynamics, 2014).

Plant diversity is estimated at >500 species (Mendelsohn et al, 2002), notwithstanding the fact that terrain and water availability may contribute to local differentiation. The area as recorded to host the highest occurrence of plant diversity in Namibia, and some local endemics occur. The distinctiveness of mountain vegetation is not highlighted by biophysical baseline data, and the variety of plant species may congregate in very small places where microclimate, elevation, and sheltered areas provide a variety of habitats and niches. A number of indigenous trees could be observed around the larger area around and within the EPL, some of which will deserve protection even though the most are not "Protected". According to the Forestry Act, some species are protected, making it necessary to obtain a permit before removing them. This may include Marula tree (*Sclerocarya birrea)* and Buffalo thorn (*Ziziphus mucronata)* species.

Other species with commercial potential that could occur in the general area include *Hyphaene petersiana* (Makalani palm) – a palm tree native to the subtropical, low-lying regions of south-central Africa, *Combretum imberbe* (Lead wood), *Terminalia prunioides* (Purple-pod Terminalia) *Peltophorum africanum* (African Wattle), *Acacia mellifera detinens* (Black-thorn acacia) and *Acacia luederitzii* (Kalahari acacia) (Enviro Dynamics, 2014). A detailed vegetation study may identify matters that require further investigation. Also refer to **Appendix E** plant species list.

TABLE 7 - FLORA DATA FOR THE AREA (Mendelsohn et al, 2002)

Biome	Tree-and-shrub Savanna
Vegetation structure type	Karstveld

Number of plant species	More than 500
Dominant plant species 1	*Colophospermum mopane*

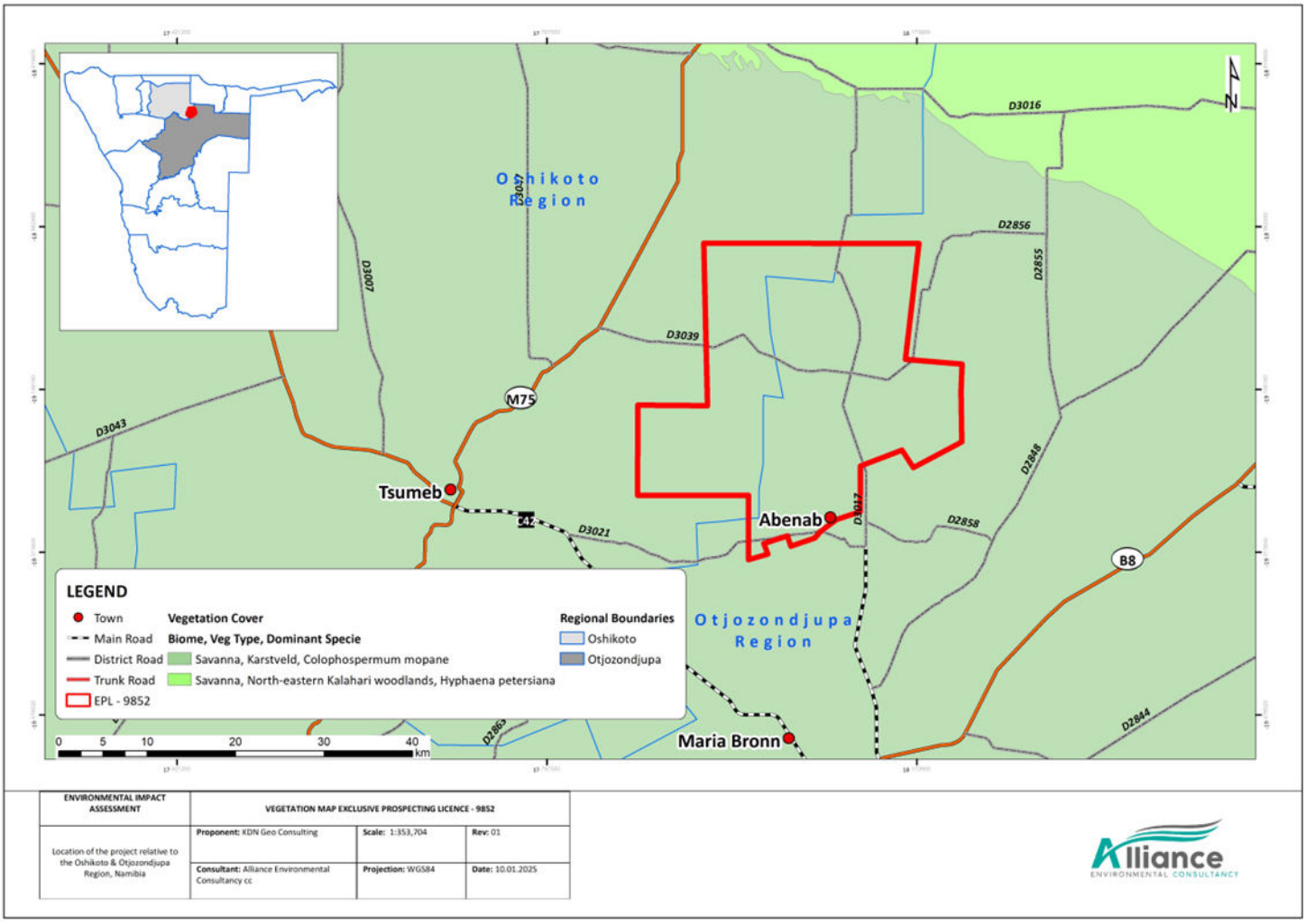


FIGURE 16 - FIGURE 16 -VEGETATION COVER OF THE SURROUNDING AREA.

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

Appendix E contains a list of species list that could potentially occur within the study area as obtained from the National Botanical Research Institute (NBRI).

6.3.2. FAUNA

This section borrows much from the book of Mendelsohn et al. 2002.

Nationally, the area is regarded as a relative medium - high mammal, reptile and intermediate amphibian diverse. Furthermore, the study area is known to have a relative high number of reptile and mammal species that are endemic to Namibia. Although many endemic species are known to occur from the general area, it cannot be determined if any of these are expected within the EPL area.

Between 76 and 90 species can be found in the larger area around the EPL , which is more than the majority of other regions in the country, where an average of 60 species are found. According to the information that is currently available, this region is home to 6 of the 8 large herbivores and 5 of Namibia's native large carnivores. With 71 to 80 different species recorded, the research region contains a very high diversity of reptile species. Frog diversity is not very high in the study area; approximately 12 to 15 of the 35 listed species may be observed.

Mammals classified as rare (*Cistugo seabrae, Zeltomys woosnami, Felis nigripes*) under Namibian legislation and vulnerable (*Smutsia temminckii Acinonyx jubatus, Panthera pardus, Felis nigripes*) and near threatened (*Eidolon helvum, Hyaena brunnea*) by the IUCN (2017) are viewed as the most important although they do not necessarily occur in the area throughout the year, but rather pass through occasionally dependent on environmental conditions, etc.

Species most likely to be adversely affected by exploration would be the variety of reptiles and ground nesting birds specifically associated with this area. Mitigation measures aimed to prevent any serious or lasting damage to this diversity including limiting damage to habitat in general and prohibiting poaching is detailed in the EMP. Generally, in the area of EPL 9852, there are numerous anthropomorphic influences – e.g., long term farming activities and associated infrastructures, roads, and private farm tracks, etc. affecting the general natural landscape.

6.4. SOIL

The soils in this area are broadly categorized to the group of leptosols and defined by a mollic leptosols domination soils as indicated in **FIGURE *17***. The southern parts of EPL are covered by rocky outcrops associated with leptosols. Mollic Leptosols, the predominant soil type in the EPLs, have strong surface structure but poor water-holding capacity. When thunderstorms, which are common in this region, strike, water prefers to run off instead of infiltrating. Mollic Leptosols have a low water-holding capacity due to their shallowness and gravelly nature, which also renders them very limited in agricultural potential. Their depth is restricted by a Petro-calcic horizon. The soil is highly fertile, but their usage is restricted by their shallow and rocky nature.

Other characteristics of these soil type are brownish black to dark brown color, fine sand to loamy sand texture, slightly to highly alkaline pH level, well drained, highly calcareous, loose consistence, many to abundant fragments of limestone and abundant fine roots in the topsoil **(**Strohbach,2014).

Hydrocarbon spillages should thus be regarded as an emergency and every action should be taken to immediately remedy the situation before spreading occurs.

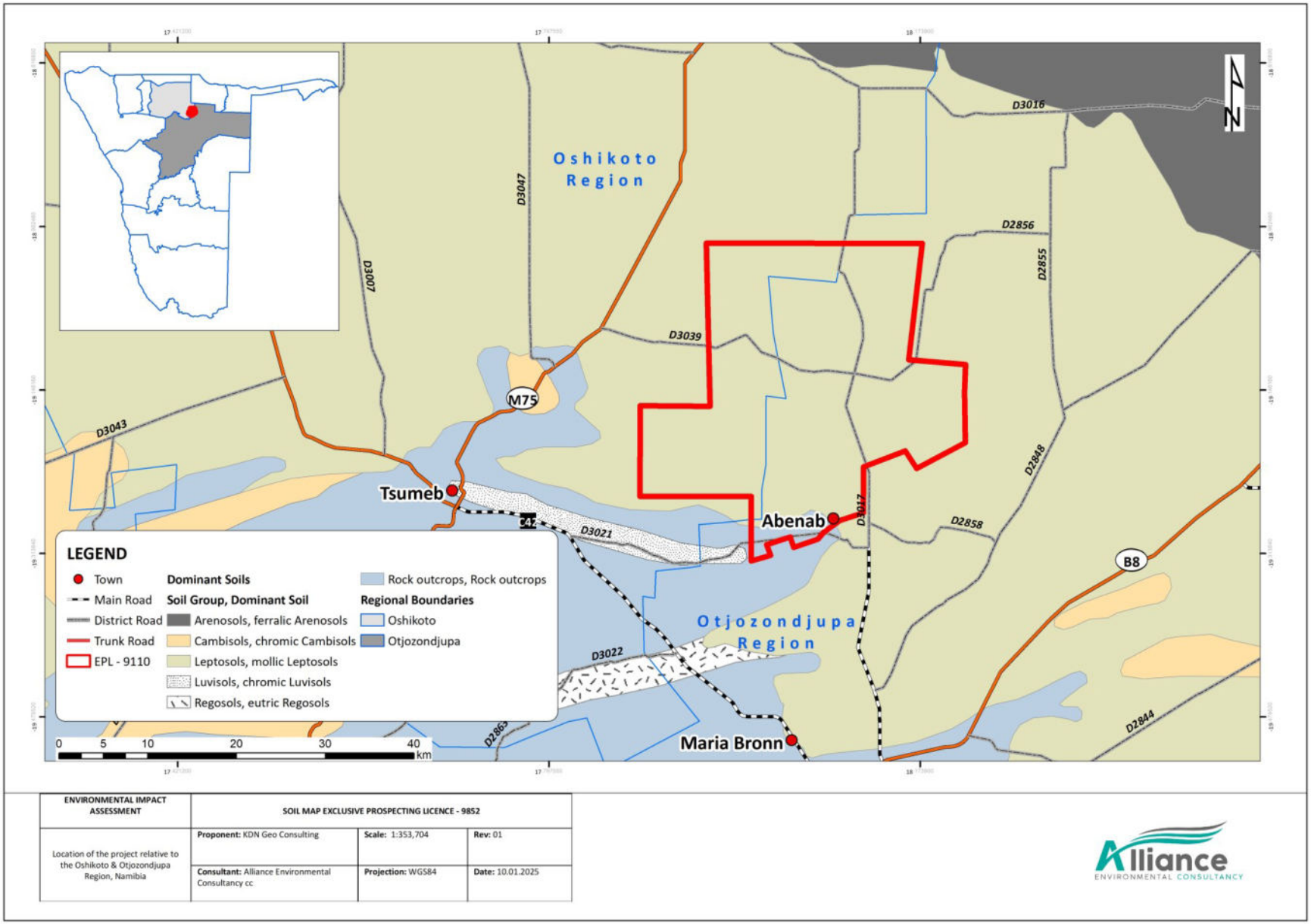


FIGURE 17 - DOMINANT SOIL AROUND THE STUDY AREA

6.5. GEOLOGY

The EPL area consists of Kalahari and Namib sands as well as Otavi group (**FIGURE 18**). The basement in the EPL area is made up of Palaeoproterozoic granitic gneiss and amphibolites which have been intruded by Mesoproterozoic granite. The underlying geology primarily consists of limestones (including calcrete), dolomites and marbles. Pre-historic weathering of surface and underground limestone by water caused them to dissolve and a "karst landscape" developed. Overlying the basement are lithologies of the Damara Supergroup which in the Otavi Mountain Land (OML) consists of three groups, oldest to youngest, the Nosib, the Otavi and the Mulden Groups.

The company is targeting rare and base metal mineralization of the OML which can be associated with precious metals and industrial minerals. The most significant mineralization of the OML as worked over the past decades are as follows:

The Nosib Group : Askevold Formation: Nosib and Askevold copper deposits

The Otavi Group: Gauss Formation: Berg Aukas zinc-lead-vanadium deposit, Auros Formation: Abenab West lead-zinc-vanadium deposit, Maieberg Formation: Abenab vanadium and Khusib Springs copper-lead-zinc deposit, Hüttenberg Formation: Tsumeb lead-copper-silver-zinc-(germanium), Tsumeb West copper, Kombat copper-lead-(zinc) deposits

The Mulden Group: Tschudi Formation: Tschudi copper-silver deposits

Although the OML's mineralization is structurally constrained, it is also known that some stratigraphic control exists over the OML's distribution. There are more than 620 recognized mineral occurrences in the area, with the Gauss Formation of the Abenab Subgroup and the Elandshoek Formation of the Tsumeb Subgroup housing the majority of them. Just 10% of the EPL, which is covered in sand, gravel, and calcrete, has rock outcrops of the Elandshoek and Hüttenberg Formations that have been mapped. The first exploration targets on the EPL will be the Elandshoek and Hüttenberg Formations under cover along with possible alkali intrusives hosting rare earth mineralization. Due to the EPL's vicinity to the Abenab and Abenab West types of mineralization, they are the second target.

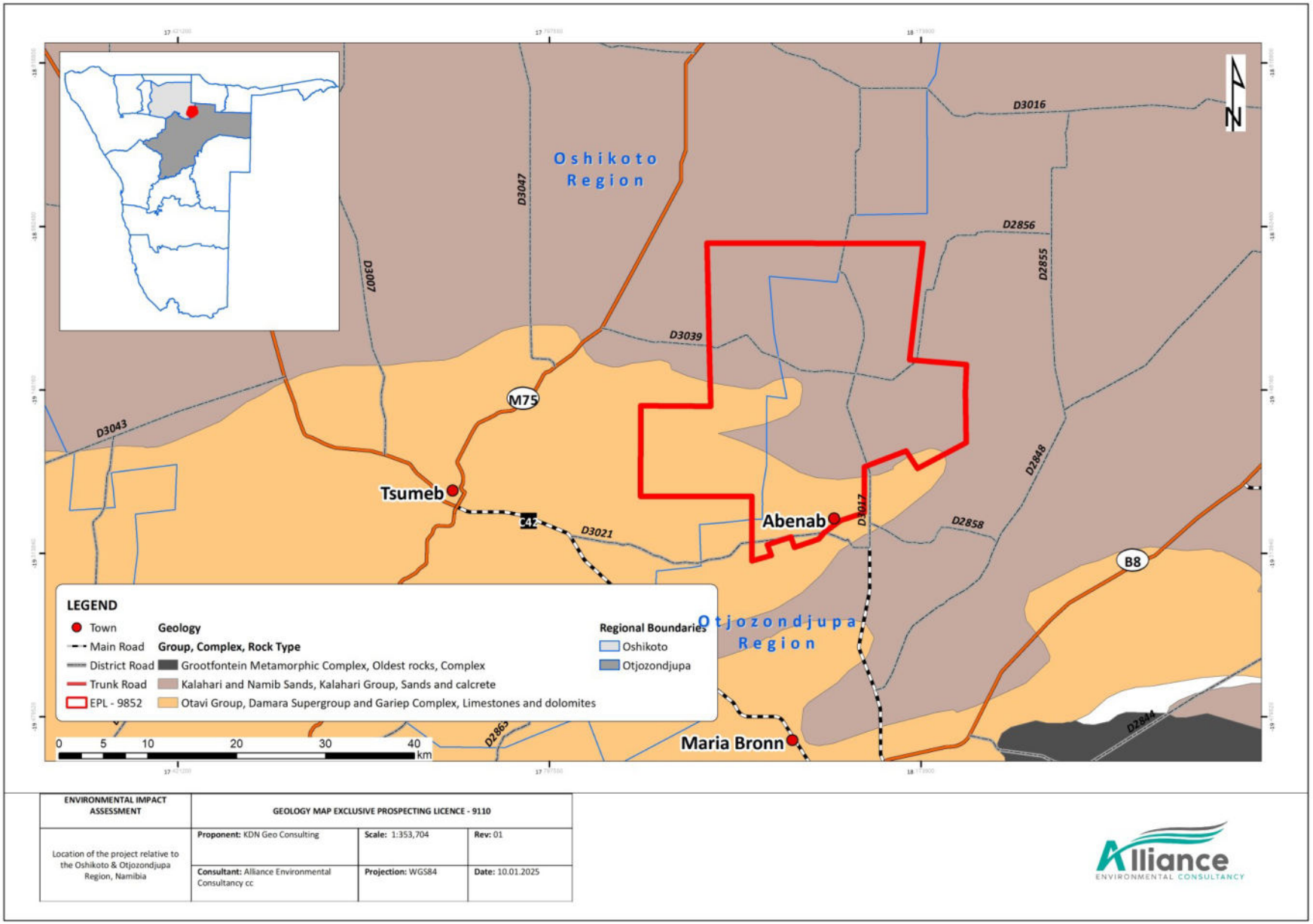


FIGURE 18 - GEOLOGY OF THE SURROUNDING AREAS.

6.6. HYDROLOGY

The proposed EPL lies in the Owambo Groundwater basin (**FIGURE 19**). The EPLs fall within the hydrogeological region of the Otavi Mountain Land (OML), an area characterized by a productive fractured aquifer mainly recharged through rainfall and water quality is generally of a high standard (Christelis, 2001). The general direction of the groundwater flow is south, towards the Omatako Basin. Dolomites, which underlie the region, exhibit a high potential for groundwater with an increased potential when localized fractures and faults occur. The water table in the area is extremely shallow; past research shows that at some places intersected at only 4m below surface (Enviro Dynamics, 2014). The majority of the area has been designated a "Groundwater Control Area," highlighting the value of its potential for groundwater on a national scale (Christelis, 2001).

There are more than 30 boreholes situated within and around the EPL area and farmers around the area predominantly use water from borehole extraction(shapefile obtained from DWA). Provided that the boreholes within the area are operational, it is highly probable that water will be obtained from some of these existing boreholes during the exploration activities. Appropriate permits should be obtained from DWA should borehole water use be realized. Taking into account the nature and scale of the proposed exploration, drilling is unlikely to impact groundwater.

Considering the shallowness of the groundwater basin, there is some risk of contamination that has to be properly managed. Therefore, storage of any material substance that may cause pollution to water sources should be handled and stored in accordance with appropriate legislation.

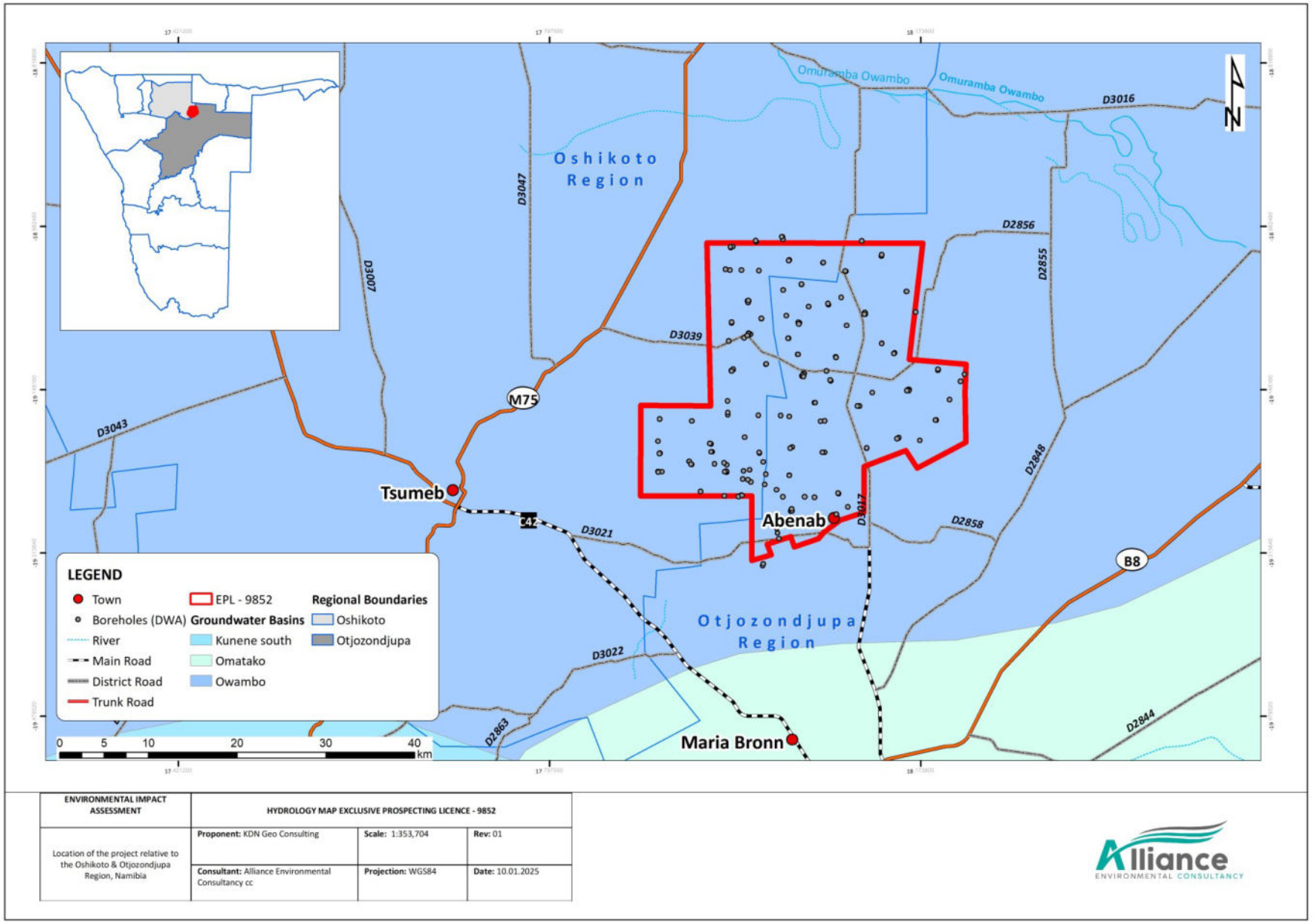


FIGURE 19 - HYDROLOGY SETTING OF THE SURROUNDING AREA.

6.7. SOCIO-ECONOMIC SETTING

6.7.1. REGIONAL AND LOCAL PROFILE

The EPL 9852 is located within the Oshikoto and Otjozondjupa Regions in the north central part of Namibia. The name Oshikoto lends it well to this region as it describes the most prominent natural heritage, the Otjikoto Lake. Oshikoto has a total surface area of 38,653km square and is home to the Etosha National Park to its west and it is bordered by the Omusati and Oshana Regions in the west, the Ohangwena to the north and Kavango-West and Otjozondjupa Regions to the east (NSA, 2014).

Otjozondjupa is the fourth largest region in the country with a total surface area of 105 460 km², representing about 7.8% of the total area of Namibia. The Region is bordering Kavango Region on the north, Oshikoto Region in the north-west, Kunene and Erongo regions in the west, Omaheke and Khomas regions in the south, and the Botswana border to the east (NSA, 2014).

Oshikoto consists of eleven (11) constituencies whereas Otjozondjupa has seven (7). The constituencies are headed by the political office bearers in the form of Honorable Councilors. The EPL falls withing the Grootfontein and Tsumeb constituencies. The regions are further divided into municipalities and village councils that operate as the custodians of the land. The Abenab area near Tsumeb is a region rich in mining history and natural beauty. Its proximity to significant landmarks and its historical mining sites makes it a noteworthy destination for both cultural enthusiasts and travelers exploring northern Namibia. The Abenab Mine's historical significance lies in its exceptional vanadium deposits. Vanadium is a critical metal used in steel production and various alloys, enhancing strength and durability. The mine's legacy contributes to Namibia's mining heritage and economic development.

6.7.2. DEMOGRAPHY

The 2011 Namibia Population and Housing Census results show that Otjozondjupa had a population of 143 903 people of which 70 001 were women and 73 902 were men. The population grew at an average annual rate of 0.6 per cent between 2001 and 2011. The Oshikoto Region recorded a total population of 181,973 in 2011. The population density (is 4.7 persons per km2) the growth rate was estimated at 1.2%. Tsumeb had a population of 19,275 residents in 2011 (NSA, 2014).

6.7.3. EDUCATION AND EMPLOYMENT

Any region's socioeconomic growth can be greatly accelerated by education because it significantly increases the literacy, knowledge, and competency that people and communities require to function on a daily basis. The education sector in these regions covers Pre-primary education, Primary education, Secondary education and adult education.

A higher proportion of the Otjozondjupa population in rural areas had never attended school (26.8%) compared to urban areas (10%). Likewise, 40.4 percent of the population had completed their primary education and 19 percent had completed their secondary education before leaving school. Only 4.1 percent of the population had completed their tertiary education (NSA, 2014). Oshikoto shows that 38.7 percent of the population had completed their primary education and 15.1 percent had completed their secondary education before leaving school. 41.9 percent had not completed primary school, and only 3 percent of the population had completed their tertiary education. Oshikoto as a whole, was marked by low education levels, which affected employability and prevented many households to earn a decent income (NSA, 2011).

The unemployment rates in Namibia, particularly among the youth are high. As of 2018, the overall unemployment rate in Namibia was estimated at 33.4%, which is a slight decrease of 0.6% compared to 34.0% in 2016. According to the Namibia Labour Survey (2018), the unemployment rate of the Oshikoto and Otjozondjupa Regions was 26.6% and 36.1% respectively, while the unemployment rate for people between 15 and 34 years of age was 47.4% in 2018, slightly higher than the national average of 46.1% (NSA, 2011).

The 2011 census data on the primary industries within which workers are employed shows that Oshikoto and Otjozondjupa are heavily reliant on the agricultural sector (49% of jobs). The next most prominent sectors were the administrative and support services (7% of jobs), followed by education and activities of private households at (6% of jobs each). For Otjozondjupa elementary occupations made up the largest occupational group (23.5%), followed by skilled agricultural workers (21.5%). Also, a major employer, about 1.7% of the formal labour force of Namibia is directly employed by the mining sector (NSA, 2011).

6.7.4. LAND USE AND ECONOMIC ACTIVITIES

The Regions are strategically located to attract economics activities. They are predominantly communal and rural in character, the administrative center for Oshikoto is Omuthiya and business center is Tsumeb surrounded by commercial farms whereas Otjiwarongo is the administrative center for Otjozondjupa. Oshikoto is also known for its copper mine near the town of Tsumeb. The Region is a leader in the production of fruits and vegetables because of the underground water that can be found in Tsumeb and Oshivelo.

Around the EPL area the socioeconomic setting is dominated by commercial agriculture of cattle and small stock as well as crop production. Agriculture has been a proven viable practice for 50 years in the area providing continued employment and food production on a sustainable basis. Agriculture activities, both communal and commercial in the area have opened up a window of hope for crop

and livestock farming in the Regions. Most of the households in the communal area engage in subsistence farming. Outside the veterinary cordon fence, also referred to as the "red line," is where commercial farming is primarily conducted. Local marketplaces in the area are dominated by the sale of agricultural goods. The livelihood of those living in the region who are engaged in agriculture is a source of both income and domestic consumption. The bulk of the population in the regions relies on farming of both crops and cattle for their livelihood. Etosha National Park is one of the famous tourist attraction areas which offer tourists and other interested people the opportunity to view wildlife and the beautiful Andoni Plateau. The Hoba Meteorite was discovered in the 1920's on the farm Hoba, 19 km west of Grootfontein in the Otjozondjupa Region. It is estimated that the meteorite fell to earth about 80,000 years ago. It is the world's largest meteorite and weighs 60 tonnes. It is approximately 2.7m x 2.7m x 0.9m in size and is made up of 82% iron 16,4% nickel and 0.76% cobalt. The Hoba meteorite was declared a national monument in March 1955, and it is a National Heritage Site (Otjozondjupa Regional Council, 2020).

An important part of Namibia's economy is mining, which contributes 25% of the nation's GDP and has continually been the largest source of revenue for Namibia (NSA, 2011). Uranium, gold, diamonds, copper, zinc, lead, salt, and dimension stone are the principal commodities.

The copper mine at Tsumeb, which was constructed in 1961–1962, is renowned for housing one of the few industrial smelting facilities in Africa. One of only a few smelters in the world that can handle polymetallic concentrates with high arsenic levels is the Tsumeb smelter, which makes it special. Because of this, the Tsumeb smelter acts as a smelting facility for a number of nations that produce copper, including Botswana, Zambia, and the Democratic Republic of the Congo. The Otjozondjupa region hosts one of the country's biggest gold mines (B2Gold) which employs a vast number of Namibian citizens.

6.7.5. ARCHAEOLOGICAL AND HERITAGE

The EPL and surrounding areas were previously disturbed through agricultural practices and minerals exploration in the past. A site-specific heritage assessment was carried out for this project (Appendix F). The findings were compiled through ground survey, following standard and accepted archaeological procedures. The surface was assessed for possible Stone Age scatters, archeological buildings, as well as exposed Iron Age implements, and other archaeological resources. The survey followed investigation of the cultural resources onsite using the best possible technologies for archaeological field surveys. The EPL area was surveyed, and findings of graves heritage were documented through photographs. A Samsung GPS Logger (2018) was used to record heritage finds on site. The table below provides a summary of findings within EPL 9852.

Additionally, In cases where more heritage sites are discovered, the chance finds procedure will be used where appropriate measures will be undertaken upon discovering sites of archaeological importance. All archaeological remains are protected under the National Heritage Act (2004) and will not be destroyed, disturbed or removed.

TABLE 8 - SUMMARY OF SOME IDENTIFIED HERITAGE RESOURCES/ SITES INSIDE AND OUTSIDE THE EPL AREA. (Enviro-Leap, 2025). Table 1 of the Heritage Report in Appendix F

Heritage Resources	Coordinates GPS Location	Description
Site 1 Site 1: Farm Elandsvlak-Main farmsteads and related structures.	S -19.1018649° E 17.9207232°	A mixture of historical and contemporary buildings, kraal related structures and maize fields.
Site 2 Farm Elandsvlak-Burial site	S -19. 097658° E 17.907630°	A burial site with 20+ graves, the graves are partially fenced off. All the graves are stones capped.
Site 3 Farm Bethanie 01-Main farmsteads and related structures.	S -19.096191° E 17.994863°	Contemporary buildings and kraal related structures.
Site 4 Farm Bethanie 02-Main farmsteads and related structures.	S -19.091642° E 17.998625°	A mixture of historical and contemporary buildings, kraal related structures and garden.
Site 5: Farm Ebenerze-Main farmsteads and related structures.	S -19.133039° E 17.028834°	A mixture of historical and contemporary buildings, kraal related structures and maize fields.
Site 6: Farm Ebenezer-Burial site	S -19. 123206° E 17.028834°	A burial site with 7 graves, the graves are an open space. All the graves are stones capped.
Site 7: Farm Brakkies-Main farmsteads and related structures.	S -19.070718° E 17.115654°	A concentration of farmsteads.
Site 8: Farm Brakkies-Burial site	S -19. 066617° E 17.115654°	A burial site with 3 graves, the graves are an open space. All the graves are stones capped.
Site 9: Farm Don Tsabeb-Burial site	S -19. 032572° E 18. 092189°	A burial site with 8+ graves, the graves are on open space overgrown by vegetation. All the graves are stones capped.
Site 10: Farm Don Tsabeb-Main farmsteads and related structures.	S -19.029676° E 18.097173°	A concentration of farmsteads.
Site 11: Farm Kliprand- farmsteads and related structures.	S -19.0196° E 18.074657°	A concentration of farmsteads.
Site 12: Farm Kliprand-Main farmsteads and related structures.	S -19.993426° E 18.03321°	A concentration of farmsteads.

7. STAKEHOLDER ENGAGEMENT

7.1. PUBLIC PARTICIPATION

Public participation is the cornerstone of the Environmental Impact Assessment process. These include the ongoing provision of sufficient information (in a transparent manner) to Interested and Affected Parties (I&APs). During the public participation process, I&APs are given the opportunity to comment on the findings of the EIA study.

Good consultation helps foster genuine and positive relationships with mutual respect, shared concerns and objectives between the company pursuing development and the community. The public participation facilitator's role is to facilitate that process of dialogue to ensure there is transparency and accountability in decision-making and public confidence in the proposed project and its management. The following approaches were employed in an attempt to get in contact with the potentially affected and interested parties around the project area.

7.1.1. BACKGROUND INFORMATION DOCUMENT

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

7.1.2. NEWSPAPER ADVERTS

Noting that the previous licence was EPL9110, the Public notices/invitations in relation to that were placed in the following newspapers for two consecutive weeks (**12th and 16th /19th of December 2022)**: **Appendix D** provides Tear sheets of the adverts. The second round of newspaper notices in relation to EPL 9852 was placed on the (02nd and 09th December 2024 respectively).

- The Republikein newspaper
- The Allgemeine Zeitung
- The Sun newspaper
- The Windhoek Observer newspaper (EPL9110)

7.1.3. SITE NOTICES

Site notices were placed around accessible places in Tsumeb which is the closest town to the EPL and where most farmers get their supplies. The notices are included in **Appendix D**. The locations include notice boards at:

- The Tsumeb Municipality.
- The Agra supermarket.
- The Tsumeb police Station.
- Pupkewitz mega build.
- Open market.
- Tsumeb Engine Wimpy service station.

7.1.4. STAKEHOLDER ENGAGEMENT

Written notices/invitations were sent to several farmers organizations/institutions in order to obtain details for farmers that overlaps with the EPL boundaries and inform them about the proposed project. AEC visited the Directorate of Lands and Resettlement offices for the same purpose of obtaining details to communicate with landowners. Written notices were posted to the affected and identified farmers that overlay the EPL area. The proof of notice postage and template is attached under **Appendix D**. An initial notification email and WhatsApp text were circulated and sent to all identified and registered stakeholders as part of this consultation announcing the commencement of the EIA process and extending a formal invitation to the public to formally register as interested & affected parties (I&APs) as well as to attend and participate in the public consultation meeting which was scheduled on the 18th of February 2025. Included in the notification email and WhatsApp text were the Background Information Document (BID) and project site locality map which provided a high-level description of the proposed activities and where such activities will be undertaken. The proof of notice communication is attached under **Appendix D.**

In the initial stages of the project a visit to the site was conducted by the proponent and more farmers' details were obtained and shared. One public engagement and information sharing meeting was held for this project at:

- Abenab Lodge

The minutes of the meeting are contained in **Appendix D**. The draft scoping report and EMP will be shared with the identified and registered stakeholders for a period of 14 days to provide further input and comments on the proposed exploration project.

In the event that the ECC is granted the proponent shall ensure ongoing consultation with all relevant affected parties for access to land and other resources.

7.1.5. REGISTERED STAKEHOLDERS

A complete summary of all registered stakeholders identified and registered for the project is attached to this report in **Appendix D**. The pre-identified project stakeholders were notified about the planned

exploration activities by means of electronic mail, advertisement in local newspapers, formal WhatsApp text, and display of printed notices at publicly accessible locations near the project area.

Amongst key stakeholders identified and registered for this project were (also in **Appendix D**):

- Central or national government: Ministry of Environment, Forestry & Tourism; Ministry of Agriculture, Water Affairs & Land Reform; Ministry of Industrialization and Trade.
- Regional government: Oshikoto and Otjozondjupa Regional Councils
- Parastatals:; the National Heritage Council; the National Botanical Research Institute.
- Members of the public including landowners: farm owners; the Namibia Irrigation Framers Association; the EIA Tracking and Monitoring body in Namibia; and numerous interested and affected members of the community.

7.1.6. STAKEHOLDER ENGAGEMENT OUTCOMES

Issues received were regarding the access agreements and legal provisions pertaining to prospecting, orchards and plantations. Other issues were pertaining to dust in the area due to the project activities as well as concerns pertaining to contamination of the groundwater. The correspondences is included in **Appendix D.**

8. EVALUATION OF IMPACTS

8.1. ASSESSMENT PROCEDURE

The purpose of this section is to assess and identify the most pertinent environmental impacts by describing certain quantifiable aspects of these impacts and to provide possible mitigation measures to minimize the magnitude of the impacts that are possibly deriving from the various activities that constitute the proposed prospecting and exploration activities on EPL 9852 by the proponent.

The identification of potential impacts included impacts that may occur during the pre-operational, operational, and decommissioning phases of the project. The assessment of impacts includes direct, indirect as well as cumulative impacts. In order to identify potential impacts (both positive and negative) it is important that the nature of the proposed projects is well understood so that the impacts associated with the projects can be assessed.

The process of identification and assessment of impacts includes:

- Determining the current environmental conditions in sufficient detail to establish a baseline against which impacts can be identified and measured.
- Determining future changes to the environment that will occur in a case where the activity does not proceed.
- Develop an understanding of the activity in detail to understand its consequences; and
- The identification of significant impacts which are likely to occur if the activity is undertaken.

The following potential impacts on the environment during the different stages of the project have been identified:

Possible Positive Impacts

- Contributions to annual license fees to the government through the MME.
- Payments of lease agreements and services rendered.
- Provision of contractual employment opportunities.
- Increase in knowledge on the subsurface which then contributes to development, and geoscience research.
- Contribute to the socio-economic development of the local area and region,
- Direct capital investment into Oshikoto and Otjozondjupa Regions

Possible Negative Impacts

- **Ecological disturbances**

  Potential removal of vegetation to allow project activities and erect temporary site shade structures during field work and exploration operations. Habitat disturbance, especially reptile habitats due to drilling, and increased flow of traffic. Possible loss of flora, wildlife, and livestock to poaching.

- **Dust & Noise**

  Dust emanating from the increased movement of vehicles, trucks and other operational machinery may degrade the ambient air quality in the area. Potential increase in noise levels from project vehicles and machinery may be a nuisance to the locals.

- **Visual**

  Changes to the aesthetic appeal of the area due to the presence of people, vehicles and machinery. Visible changes to habitats due to human activities.

- **Health & Safety**

  From the handling of equipment and use of machinery as well as potential risks of contracting diseases linked to prolonged exposure to dust.

- **Waste**

  Resulting from maintenance work performed on the machinery as well as littering in the area include packaging from food or other products and consumables.

  Soil pollution may include petrochemical spills from vehicles (bakkies), water trucks, diesel operated generator as well as the trailer mounted diesel tank for fuel storage.

- **Groundwater and surface water**

  Due If there is inadequate management of waste, discharges, non-contained wastewater, spillages of drilling fluids lubrications, and fuel spills, they may penetrate the surface and ground water.

- **Topography**

  Possible disturbance of the topography due to clearing for drill pads, camp sites establishment, and by removal of bulk samples during exploration.

- **Heritage & Socio-Economic**

  Potential disturbance and damage to unforeseen archaeological or heritage sites during project activities and movements in the area.

- **Impact of poor communication**

  Miscommunication may lead to negative reception of the project or frustration of the community towards the project. Increased movement in the surrounding area, inadequate delivery of notices for exploration and the operational activities, may result in conflicts with landowners and the affected communities.

The following methodology is applied to the prediction and assessment of impacts and risks. Potential impacts and risks have been rated in terms of the direct, indirect, and cumulative where:

Status	Whether the impact/risk on the overall environment will be
	• **Positive -** Environment overall will benefit from the impact/risk. • **Negative -** Environment overall will be adversely affected by the impact/risk. • **Neutral -** Environment overall not be affected.

Direct impacts	Impacts are directly caused by the activity and usually occur at the same time and place of the activity. These impacts are often related to the construction, operation or maintenance of an operation and are often obvious and quantifiable.
Indirect impacts	These types of impacts include all the potential impacts that are not evident immediately when the activity is carried out, or which occur at a different place due to the activity.
Cumulative impacts	Impacts that result from the incremental impact of the proposed activity on a common resource when added to the impacts of other past, present, or reasonably foreseeable future activities.

In addition to the above, the impact assessment methodology includes the following aspects:

Spatial Extent	The size of the area that will be affected by the impact:
	Site specific - Only within the site boundaries **Local -** limited to within 15 km of the area. **Regional -** limited to ~100 km radius **National -** limited to within the borders of Namibia. **International -** extending beyond Namibia's borders

Consequence	The anticipated consequence of the impact:
	• **Extreme -** Environmental functions and processes are altered such that they permanently cease; • **Severe -** Environmental functions and processes are altered such that they temporarily or permanently cease. • **Substantial -** environmental functions and processes are altered such that they temporarily or permanently cease. • **Moderate -** Environment continues to function but in a modified manner; or • **Slight -** No natural systems/environmental functions, patterns, or processes are affected.

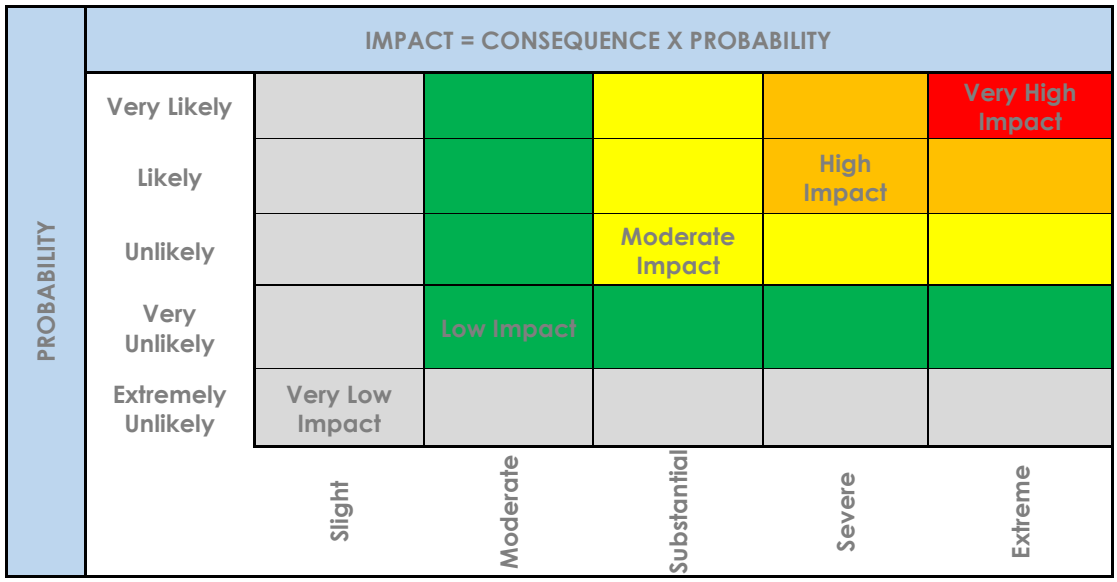
Duration	The timeframe during which the impact/risk will be experienced
	• **Very short term** - instantaneous. • **Short term** - less than 1 year. • **Medium term** - 1 to 10 years. • **Long term** - The impact will occur for the project duration. • **Permanent -** The impact will occur beyond the project decommissioning.

Reversibility of the Impacts	The extent to which the impacts/risks are reversible assuming that the project has reached the end of its life cycle (decommissioning phase)
	• **Yes** - High reversibility of impacts (impact is highly reversible at end of project life); • **Partially -** Moderate reversibility of impacts; or • **No -** Impacts are non-reversible (impact is permanent).

Using the criteria above, the impacts will further be assessed in terms of the following:

Probability	The probability of the impact/risk occurring
	• Very likely. • Likely. • Unlikely. • Very unlikely; and • Extremely unlikely.

To determine the significance of the identified impact/risk, the consequence is multiplied by probability. This approach incorporates internationally recognized methods from the IPCC (2014) assessment of the effects of climate change and is based on an interpretation of existing information in relation to the proposed activity. The significance is then rated qualitatively as follows against a predefined set of criteria (i.e., probability and consequence) as indicated below:



Where:

Significance	Will the impact cause a notable alteration of the environment?
	• **Very low (5) -** The risk/impact may result in very minor alterations of the environment and can be easily avoided by implementing appropriate mitigation measures and will not have an influence on decision-making. • **Low (4) -** The risk/impact may result in minor alterations of the environment and can be easily avoided by implementing appropriate mitigation measures and will not have an influence on decision making. • **Moderate (3) -** The risk/impact will result in moderate alteration of the environment and can be reduced or avoided by implementing the appropriate mitigation measures and will only have an influence on the decision-making if not mitigated. • **High (2) -** The risk/impact will result in major alteration to the environment even with the implementation on the appropriate mitigation measures and will have an influence on decision making; and • **Very high (1) -** The risk/impact will result in very major alteration to the environment even with the implementation on the appropriate mitigation measures and will have an influence on decision making.

Confidence	The degree of confidence in predictions based on available information and specialist knowledge
	• **Low -** Based on the availability of specialist knowledge and other information. • **Medium - B**ased on the availability of specialist knowledge and other information. • **High -** Based on the availability of specialist knowledge and other information

Impacts are evaluated for the different phases of the proposed project. Impacts have been evaluated with and without mitigation in order to determine the effectiveness of mitigation measures on reducing the significance of a particular impact. The Assessment is presented in the following section and further in the Environmental Management Plan (EMP).

9. IMPACTS ASSESSMENT

The purpose of this section is to assess and identify the most pertinent environmental impacts by describing certain quantifiable aspects of these impacts and to provide possible mitigation measures to minimize the magnitude of the impacts that are possibly derived from the various activities that constitute the proposed minerals prospecting and exploration activities within EPL 9852. Comments and concerns raised during the public consultation process have been considered and included.

TABLE 9 – ECOLOGICAL/BIODIVERSITY IMPACT ASSESSMENT TABLE

Impact	Minerals prospecting and exploration activities in general pose impacts towards the diversity of species within the various habitats by reducing population numbers of certain species.
Nature of impact	Loss of Habitat and species during exploration activities such as drill rig preparation, tracks creation and general movement in the area. The most vulnerable species are reptiles and birds. Some exploration activities such as tracks creation, drill site preparations and camping area preparation require removal of some plants to a small extent therefore affecting the flora status of the area. Taking into account that the EPL overlays farmlands where commercial farming is practiced, the presence of project personnel and vehicles may disturb domestic animals and scare away the wild animal. Some affected farmers practice orchard plantation. They possibly operate under specific farming practice and regulations that should be adhered to maintain good standing status. Therefore, areas where this is being practiced may be off limits from exploration. The increase in people movement on the licenses could bring about livestock theft, illegal hunting, or poaching. No specialist fauna and flora studies were commissioned for the EIA. Specialist studies were deemed unnecessary for this environmental impact assessment due to low intensity and extent of the activities. Exploration may occur at designated sites throughout the EPL but the total activity footprint as a percentage of the total areas of each habitat is estimated to be very low.
Status	Negative

Spatial Extent	Local
Duration	Short term – If the exploration does not reach the advanced stages. Long term – If the exploration reaches the advance stages
Consequence	Moderate
Probability	Very Likely
Reversibility	Partially
Mitigation Measures	– Though the habitats will remain relatively undisturbed due to the very low percentage footprint of activities planned, without prior knowledge of the whereabouts of the vulnerable, threatened and critically endangered species and their preferred habitat, it may not be possible to prevent an impact, regardless of how small it might be. – The planning of the project activities layout must endeavor to reduce the footprint on fauna and flora to a minimum, without compromising the realistic needs of the business operation and making decisions that will safeguard against indiscriminate habitat alteration. – The proponent should familiarize themselves with the EU farming practice and veterinary regulations and laws and where necessary should be taken into consideration during the planned exploration activities. Same applies for orchard plantations. – If any topsoil or grass exists, when removal is required then this should be stockpiled for use during rehabilitation. – Engage interested stakeholders to participate on site in the rescue and relocation of indigenous and protected flora. – Undertake Plant and animal Search and Rescue prior to the commencement of operations. – Driving only on existing roads (national roads and existing tracks) as far as practically possible. Creation of new tracks to consider existing biodiversity. – Habitat loss for fauna and flora species should be kept to a minimum with footprint areas being restricted to the direct operational areas only. – In addition, where possible, activities are to be aligned along previously disturbed areas. – No wandering around the site, collecting of plant species or hunting should be allowed.

		– Rehabilitation must restore the disturbed sites, as far as is possible to their prior state to mitigate the visual impact and to allow for the best possible re- colonization of the site, by plants and animals. – If targeted rock units have protected or special plants, the proponent should seek a specialist opinion on how to preserve that plant species, with possible relocation. – Notice should be given at least two (2) weeks in advance to indicate the flying times for geophysical surveys, to inform/advise the local communities on the surveys, and so that these surveys do not coincide with activities that may disturb other land use activities such hunting seasons on commercial farms. – Where activities coincide, such as clearing of vegetation for exploration activities and biomass or coal production they must be undertaken harmoniously, such that if there is sufficient cleared vegetation that may be used in coal production it can be handed over for coal production. – No onsite vegetation should be cut or used for firewood related to the project's operations. The Proponent should provide firewood for his onsite camping workers from authorized firewood producer or seller. – Working sites should be fenced off to keep wild and domestic animals out. – Environmental awareness on the importance of biodiversity preservation should be provided to the workers.
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Low (4)
Ranking of Impact		3
Confidence Level		Medium

TABLE 10 - NOISE IMPACT ASSESSMENT TABLE

Impact	Noise cause by project activities (drilling operations, machineries, and vehicular movements)
Nature of impact	Disturbance of sense of place and the effect on tranquil ambient noise levels. Hearing problems to operators if noise generation is prolonged and not managed. Potential noise sources during the exploration activities could originate from vehicles, hammers, powered hand tools, excavators, and drill rigs. The nuisance factor of these noise sources will depend on the proximity of the activities to the national road, homesteads and sensitive animal habitats.
Status	Negative
Spatial Extent	Local
Duration	Temporary/ Permanent
Consequence	Substantial/Severe
Probability	Likely
Reversibility	Partially
Mitigation Measures	– The Occupational Safety and Health Administration (OSHA) guidelines set legal limits on noise exposure in the workplace. These limits are based on a worker's time weighted average over an 8-hour day. With noise, OSHA's permissible exposure limit (PEL) is 90dBA for all workers for an 8-hour day. The OSHA standard uses a 5dBA exchange rate. This means that when the noise level is increased by 5dBA, the amount of time a person can be exposed to a certain noise level to receive the same dose is cut in half. – The WHO guideline on maximum noise levels to prevent hearing impairment set noise level limits at an average of 70 dBA over a 24-hour period with maximum noise levels not exceeding 110 dBA during the period. These latter limits would apply if the daytime shift were prolonged beyond the 8-hour day. – The nuisance factor of these noise sources will depend on the proximity of the exploration activities to the national road, homesteads, and sensitive animal habitats.

		– PPE such as earplugs is considered an acceptable mitigation of workers to noise exposure. Noise control measures should be in place for those that may be exposed to ambient noise levels. – Limiting the amount of time, a person spends at a noise source. – Machineries and vehicles (moving and stationed) should be serviced regularly. – Avoid generating unnecessary noise by making sure that equipment that is not in use are always turned off and by avoiding operations during odd hours. – Drilling schedules should be communicated in time with the landowners so that they are kept appraised especially when work may be at odd hours or over weekends. – It is recommended that any complaints regarding noise be recorded and included in the environmental reports. Should complaints persist this may require a separate study to identify noise levels and how they can be mitigated. Transportation routes should be planned for trucks such that they pass as far away as possible from noise sensitive receivers, a restriction of the hours of movement, e.g., not allowing the transport of material during the noise sensitive hours of the night can mitigate noise impacts.
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Low (4)
Ranking of Impact		3
Confidence Level		Medium

TABLE 11 - DUST IMPACT ASSESSMENT TABLE

Impact	Dust generation during exploration activities (e.g., vehicular movement, drilling operation, drill rig preparation) may result in dusty conditions.
Nature of impact	Tempering of the ambient air quality in the surrounding area Fauna and flora alike could be impacted as ecosystem functioning is possibly affected. Negative effects of dust on personnel working at the drilling site are likely to occur if dust suppression techniques are not employed and personal protection equipment is not used to safeguard the health of personnel.
Status	Negative
Spatial Extent	Local
Duration	Medium term
Consequence	Substantial
Probability	Very Likely
Reversibility	Partially
Mitigation Measures	– Natural weather conditions can create very dusty atmospheric conditions. The exploration activities contribute very little to the widespread ambient conditions that often prevail. Cars travelling on the access roads can create dust plumes trailing behind them. – Dust suppression techniques should be employed. However, this scarce resource cannot be applied continuously and indiscriminately. – Avoid activities that create excessive dust on extremely windy days. – Personnel are required to wear personal protection equipment if excessive dust is created for prolonged working periods. – Employees should be made aware of the negative health effects from inhaled dust. – Water spays at the various components will effectively keep dust from blowing into the atmosphere.

		– The road network within the EPL site can be sprayed with water and other dust suppressants during dry dusty conditions. – To mitigate gaseous pollutants released from the combustion of hydrocarbons, use of high-quality fuels will ensure quantities released per unit weight of product are at levels within environmental limits. – Should exploration intensity, and where potential future mining activities are envisioned, the proponent should consider introducing dust monitoring techniques. This can be done by identifying areas around the project where there are possible receptors to dust. A dust monitoring unit e.g., dust bucket should be erected near each receptor area and should be sampled every month to compile a dust levels baseline before any mining activities commences.
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Low (4)
Ranking of Impact		3
Confidence Level		Medium

TABLE 12 - WASTE IMPACT ASSESSMENT TABLE

Impact	Generation of waste during the proposed project activities.
Nature of impact	Domestic waste and waste from maintenance work performed on the machinery can potentially cause unpleasant odor, sight for the people in the surrounding as well as disturbance to surface and ground water. The dumping of general waste within the camp, drilling sites and surrounding areas could prove hazardous to wildlife and livestock. This could also lead to general environmental degradation.
Status	Negative
Spatial Extent	Local
Duration	Medium term
Consequence	Moderate
Probability	Likely
Reversibility	Partially
Mitigation Measures	– Waste generation is likely to be limited on site and will primarily be domestic waste. This material will be stored properly until safe disposal off-site. – All domestic waste must be taken to the nearest official dumpsite. – Collection and disposal of waste must be effective enough to not impact on the environment. – Oil from the servicing of the vehicles and machines is collected in drums and is taken together with all other industrial waste that is generated on site to the nearest hazardous waste site. – A certificate of disposal needs to be kept on file. – Personal protection equipment (PPE) can protect personnel from exposure to disease or toxic chemicals. – Groundwater is a scarce and valuable resource in Namibia and must be protected. – The Water Act will guide the proponent so that there is no pollution to water resources. – Sewerage created at the camp or management offices either needs to be deposited directly into approved and permitted French drains or removed offsite. If the latter then sealed sewerage tanks are required. The regulations under

		the Water Resource Management Act need to be consulted with regards to the erection of French drains near water courses. They cannot be constructed within 100m of the banks of a water course. – Some wastes are dangerous to fauna and flora; Animals should not be able to access the waste management area; Waste must be contained so that it cannot enter the naturally vegetated areas beyond the accessory works area. – Storage of hazardous liquid waste must by law follow industry standards. It is unlikely that hazardous waste will be generated or stored at sites during mineral exploration. However, these standards will be communicated in fuller details by the fuel supplier. Ideally, self-110% bunded containers should be brought to site and placed upon sealed surfaces with waste collection sumps. – Soil which is contaminated by used hydrocarbons needs to be removed and taken to a remediation cell where it can be treated and made suitable for re-use. – Good housekeeping is vital in waste management. – Training and awareness of company personnel and the public will inform them of those wastes that may cause harm, pollute the soil, groundwater, or air (if particulate). – The practice of reusing and recycling products should be implemented.
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Very low (5)
Ranking of Impact		4
Confidence Level		Medium

TABLE 13 - WATER IMPACT ASSESSMENT TABLE

Impact	Possible water resource pollution and overuse during the proposed project activities.
Nature of impact	Potential surface and ground water pollution. The general area has a number of river channels which could be potential pathways for pollution migration into groundwater, especially during the rainy season. Discharge of liquid or solid wastes including wastewater, chemical, fuels or oils into any public stream is prohibited and the Proponent must implement the provisions of the EMP on water and waste management. If exploration advances as a result of economic mineral discovery, it is suggested that a detailed site-specific hydrogeological specialist study which should include groundwater modelling as well as water sampling and testing, must be undertaken. This can be part of the detailed EIA and EMP that will support the feasibility study.
Status	Negative
Spatial Extent	Local
Duration	Long term
Consequence	Moderate
Probability	Unlikely
Reversibility	No
Mitigation Measures	– The Water Act will guide the proponent so that there is no pollution to water resources. – The Water Resource Management Act need to be consulted with regards to the erection of French drains near water courses. They cannot be constructed within 100m of the banks of a water course. – Always use as little water as possible. Reduce, reuse and re-cycle water where possible. – All leaking pipes / taps must be repaired immediately, and taps should not be left running. – The Proponent must obtain permission from the landowners before utilizing any water resources or any associated infrastructure.

		– Accidental spills that occur outside of the bund area must be contained and prevented from entering the stormwater system. – The site manager or the Environmental Control Officer must be notified when there is an oil spill, or a hazardous substance spill is noticed. Spills must be treated with the appropriate spill absorbent. – Any significant spills or leak incidents must be reported in terms of the National Environmental Management Act and the Water Act. – If there is a need to drill a water borehole to support the proposed exploration programme the Proponent (Proponent) must obtain permission from the landowner and Department of Water Affairs in the Ministry of Agriculture Water and Land Reforms. – In an event of discovery of economic minerals resources, the sources of water supply for the mining related operations will be supplied by NamWater and the Proponent is advised to contact NamWater at the earliest stages of the development of any possible mining project, and. – In the event that the project advances to feasibility studies groundwater monitoring must be implemented and should include water level monitoring, and water sampling. For transparency on the water monitoring activities, the affected landowners / farmers should be informed and have access to the results on the water monitoring.
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Very low (5)
Ranking of Impact		3
Confidence Level		Medium

TABLE 14 - VISUAL IMPACT ASSESSMENT TABLE

Impact	Visual impact caused by the operational activities
Nature of impact	Impact on visual resources would be considered unfavorable if the landscape were significantly degraded or modified. Changes to the aesthetic appeal of the area due to the presence of people, vehicles, and machinery . Visible changes to habitats due to human activities
Status	Negative
Spatial Extent	Local
Duration	Temporary
Consequence	Moderate
Probability	Very Likely
Reversibility	Yes
Mitigation Measures	– The domestic waste, which is separated from all paper and organic materials, is taken to the nearest official dumpsite. – As far as is possible existing roads and tracks are used to access target sites for exploration. – Personnel to be trained regarding the observable signs of faunal and floral biodiversity and the avoidance of habitat disturbance. – Minimize the footprint of personnel, vehicles, and machinery. – Where new roads are constructed, the methods should be low intensive and possibly use manpower and not machines. – The remains of all structures that may have been erected at the EPL shall be demolished and removed on completion of the project.

		– Care must be taken to ensure that all rehabilitated areas are similar to the immediate environment in terms of visual character, vegetation cover and topography and any negative visual impacts will be rectified to the satisfaction of the MEFT officials. – Overburden topsoil will be placed back into excavation as part of the rehabilitation programme. – Rehabilitate habitats through the removal of obvious signs of human presence. – Remove all waste daily and dispose of it in the appropriate manner. – Removal of machinery from the sites if periods of inactivity are protracted.
Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Low (2)
Ranking of Impact		3
Confidence Level		Medium

TABLE 15 - HERITAGE IMPACT ASSESSMENT TABLE

Impact		Heritage sites destruction during prospecting and exploration activities
Nature of impact		Possible destruction to heritage sites. A Heritage Impact Assessment was conducted for this project and is presented in **Appendix F**.
Status		Neutral
Spatial Extent		Local
Duration		Long term
Consequence		Substantial
Probability		Unlikely
Reversibility		Partially
Mitigation Measures		– A 'chance find' of any potential heritage site should be communicated to the police and the National Heritage Council of Namibia. If activities occur at the location where a 'chance find' has been made, then the activities should cease until the necessary authorities have visited the site and provided the go ahead to proceed with activities. – A holistic precautionary measure must be taken to protect the identified heritage resources within the EPL area and promote documentation of all heritage resources and dissemination to relevant stakeholders. – The identified grave and built heritage resources should be mapped on the development map to reflect their existence. – Recorded heritage finds should be avoided with a 30 m buffer. – If there are known heritage sites on the EPL a heritage specialist should advise the proponent should exploration activities coincide in these areas, during all phases of the development and before prospecting/exploration drilling commencing. The final layout should be subjected to a heritage walkthrough.
Significance of Impact	Without Mitigation	Moderate (3)

= Consequence x Probability	With Mitigation	Low (4)
Ranking of Impact		4
Confidence Level		Medium

TABLE 16 - LANDUSE IMPACT ASSESSMENT TABLE

Impact	Conflict with lands use of the area
Nature of impact	Possible conflict with community during the implementation of the project (e.g., issues related to access and security)
Status	Negative
Spatial Extent	Local
Duration	Short term
Consequence	Substantial
Probability	Unlikely
Reversibility	Partially
Mitigation Measures	– The EMA requires that permission be provided by the competent authorities for the listed activity. – Update stakeholders register regularly. – Proponent and landowners should enter into agreements that should be upheld throughout the project life – Actively engage landowners regularly to maintain open channels of communication – The proponent is subservient to the conditions laid down by the guidelines / conditions and the law that upholds it. The implementation of the exploration programme will be in accordance with the approved Environmental Management Plan (EMP). – The communities of neighboring farms may have a claim to the grazing rights of the area. Good communications for example may prevent livestock injury where excavations are present during exploration.

Significance of Impact = Consequence x Probability	Without Mitigation	Moderate (3)
	With Mitigation	Low (4)
Ranking of Impact		3
Confidence Level		Medium

TABLE 17 - SOCIO ECONOMIC IMPACT ASSESSMENT TABLE

Impact		Exploration activities related to the project
Nature of impact		Employment creation Skills Transfer
Status		Positive
Spatial Extent		National
Duration		Long term
Consequence		Slight
Probability		Very Likely
Reversibility		Yes
Mitigation Measures		– Should the license be granted the project will promote local employment and procurement of goods and services
Significance of Impact	Without Mitigation	Low + (4)

= Consequence x Probability	With Mitigation	Very low + (5)
Ranking of Impact		5
Confidence Level		Medium

10. DECOMMISSIONING AND REHABILITATION

Disturbance of the earth's surface by exploration activities may result in removal of existing vegetation and ecosystems within the disturbed area. The impacts are localized to the disturbed area, and the overall extent of the impact is determined by the concentration of the activity and the sensitivity of the disturbed ecosystems, which will be overall minimal in exploration. The impact on the environment can be lessened by planning with future closure in mind. When an exploration area is abandoned the infrastructure and altered landscape can affect the safe access of wildlife and public if not rehabilitated. The altered habitat may or may not promote the re-establishment of organisms that were once found there. Visual rehabilitation to the original state is not always practical.

The objectives of the closure and decommissioning are to:

- Provide a safe and stable landform compatible with the intended final use.
- Comply with relevant regulatory requirements and attain regulatory consensus on the successful closure and rehabilitation of the Project area.
- Complete closure, decommissioning and rehabilitation works as quickly and cost effectively as possible whilst achieving primary objectives.
- Produce a final "walk away" landform that is stable and that blends aesthetically into the surrounding landforms, yet as far as possible does not limit possible future land uses.

SITE REHABILITATION

The exploration sites should be rehabilitated to as near the original state as possible.

10.1. PLANNING FOR REHABILITATION

The proposed post exploration land-use will also influence the procedure and the plant species used for rehabilitation.

The following are the basic rehabilitation practices as summarized after the Minerals Council of Australia (1998), which with appropriate modifications, will apply to most disturbed areas.

1. Making Safe: After planning for rehabilitation, the first step is to clean up and make the area rehabilitated, safe. This involves the following:
    - Removal of infrastructure and unused or unwanted equipment. No facilities or equipment should remain on site unless with the written approval of the landowner or relevant authority.
    - Removal of rubbish for disposal at approved sites. Care is required with residual toxic or hazardous materials including contaminated packaging and containers.

2. Erosion Control: Progressive rehabilitation will be undertaken to stabilize disturbed areas as quickly as practical and to limit erosion.
    - Restrict clearing to areas essential for the works.
    - Windrow vegetation debris along the contour
    - Minimize length of time soil is exposed.
    - Divert run-off from undisturbed areas away from the works.
3. Topsoil Management: The rehabilitation strategy may include the following measures which are designed to minimize the loss of topsoil material, respread on rehabilitated areas and promote successful vegetation establishment.
    - Minimize the length of time that topsoil material is to be stockpiled.
    - Respread topsoil material in even layers at a thickness appropriate for the landform and land capability of the area to be rehabilitated.
    - Topsoil stockpiles are located in areas away from drainage lines or windy areas in order to minimise the risk of soil and wind erosion.
    - Rehabilitation areas of returned topsoil will be ripped, with care taken not to bring subsurface materials to the surface (e.g., large rocks). Ripping should only be sufficient to allow equipment to work efficiently. Ripping along slopes should be along contour.

It is anticipated that rehabilitation works will be marginal as most of the techniques employed in this exploration are minimally to non-invasive.

11. CONCLUSION AND RECOMMENDATION

The aim of this environmental scoping assessment was to identify the potential impacts associated with the proposed exploration activities on EPL 9852, to assess their significance and recommend practical mitigation measures. The public and all directly affected stakeholders are consulted as required by the EMA and its 2012 EIA Regulations (Section 21 to 24). The public is informed via the three (3) newspapers advertisement used for this assessment. Notices and emails were also shared with some identified stakeholders and general public. Furthermore, a public engagement and information sharing meeting was conducted for this project.

Due to the limited scope of the proposed activities and the use of a step-by-step approach in advancing operations, the overall severity of potential environmental impacts of the proposed project activities on the receiving environment will be of medium magnitude, temporary duration, localized extent, and high probability of occurrence.

All impacts are provided with mitigation measures, minimized, or avoided to acceptable degrees provided that the measures are taken into consideration.

Overall, the following are the primary sensitivities in the area: The risk of groundwater pollution is increased by the water table's extreme shallowness; The area is home to a wide variety of indigenous and protected tree species, as well as native fauna; and commercial farming activities support the local population. These systems of subsistence will be impacted by uncontrolled exploration activities. These concerns are addressed in the scoping and EMP reports and will furthermore be addressed in access agreements.

Based on the conclusions of this EIA Report, it is thus recommended that an Environmental Clearance Certificate be provided for the planned project activities (ECC). When implementing the proposed program, the Proponent shall consider the following critical requirements:

- The Proponent will negotiate Access Agreements with landowners.
- The Proponent is responsible for obtaining all additional permits that may be required.
- The Proponent shall comply with all terms of the EMP.
- In cases where baseline information, national or international guidelines, or mitigation measures have not been supplied or do not adequately address the site-specific project effect, the Proponent must use the precautionary approach/principles.

There is little chance that the project's planned operations will significantly harm the area's social and biophysical surroundings. To preserve the environment and advance environmental sustainability, it is crucial that the Proponent and any contractors hired carry out and oversee the appropriate management procedures.

REFERENCES

- Allan, J. G. (1998, March). *Decommissioning in the Australian mining industry setting the scene. In Proceedings of Workshop on Environmental Issues in Decommissioning of Mine Sites*, CJ Asher, and LC Bell (eds) (pp. 9-10).
- Christelis, G. a. (2001). *Groundwater in Namibia. An Explanation to the Hydrological Map*. Windhoek: Department of Water Affairs.
- Enviro Dynamics, (2014). *Environmental Scoping Report and Management Plan for the planned exploration activities as per EPLs 5261, 5262, 5263 and 5264*. Windhoek
- IOWA State University, 2023. Retrieved from: https://mesonet.agron.iastate.edu/sites/windrose.phtml?network=NA__ASOS&station=FYKX
- Mendelson J, el Obeid S, 2005. *Forests and Woodlands of Namibia*, pp 148-152. RAISON
- Ministry of Environment and Tourism, September 2011. *A community information toolkit on adaption. Integrated Environmental Consultants Namibia*. Windhoek, Namibia.
- Namibia Statistics Agency, 2017. The Namibia Labour Force Survey 2018 Report. Namibia Statistics Agency.
- Namibia Statistics Agency, 2011. *Namibia 2011: Population & Housing Census Main Report*. Namibia Statistics Agency.
- Namibia Statistics Agency. (2014). *Oshikoto 2011 Census Regional Profile*. Windhoek: UNFPA.
- Namibia Statistics Agency. (2014). *Otjozondjupa 2011 Census Regional Profile*. Windhoek: UNFPA.
- Strohbach, B, J, (2001). Vegetation Survey of Namibia. Namibia Wissenschaftliche Gesellschaft, National Botanical Research Institution. Windhoek, Namibia, 49, 1018-7677.
- Strohbach, B, J, el Burke. A, (2000). Vegetation Studies in Namibia. Namibian Scientific Society. DINTERIA No. 26:1-24 - Windhoek, Namibia .
- Strohbach, B. J., & Kutuahuripa, J. T. (2014). Vegetation of the eastern communal conservancies in Namibia: II. Environmental drivers. Koedoe: African Protected Area Conservation and Science.
- The Environmental Information Services of Namibia, 2023. Retrieved from (http://www.the-eis.com/)
- The Ministry of Mines and Energy, 2023. Retrieved from (https://maps.landfolio.com/Namibia/
- The Namibia Journal of Environment, 2023. Retrieved from: https://nje.org.na/index.php/nje/index
- Weather-and-climate. Retrieved from (https://weather-and-climate.com/average-monthly-Rainfall-Temperature-Sunshine,tsumeb-na,Namibia)
- World Weather, 2023. Climate. Retrieved from (*www.worldweatheronline.com*)

APPENDIX A – ENVIRONMENTAL CONSULTANTS CV

APPENDIX B – ENVIRONMENTAL MANAGEMENT PLAN (EMP)

APPENDIX C – BACKGROUND INFORMATION DOCUMENT

APPENDIX D – ADVERTS, SITE NOTICES, STAKEHOLDER LIST, COMMUNICATION, MEETINGS MINUTES AND PRESENTATIONS

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DATE: 4 DECEMBER 2024
REGISTRATION: 28-4 December 2024
AUCTION TIME: 10h00

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Refundable Deposit

NBII ONLY EFT
Deposits & Payments

PLACE: 19R PLATINUM ST, PROSPERITA

VEHICLES ON AUCTION:

2022 BAIC B40 X3.0 - NEW
2022 SUZUKI SWIFT 1.2 - SCRAP
2021 TOYOTA FORTUNER A/T 4X4 2.8 - NEW
2022 TOYOTA HILUX GD6 SPC 2.4 - SCRAP
2014 VOLKSWAGEN GOLF TSI - USED
2019 VOLKSWAGEN POLO VIVO - USED
2011 JEEP PATRIOT A/T 2.4 - USED
2018 TOYOTA RAV4 2.0 - SCRAP
2016 NISSAN X-TRAIL 2.5 - USED
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Items can be viewed individually at each
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RENANDO BURGER - 081 147 7480
Website: www.pro-ex.com.na

035 Regskennisgewings / Legal Notices

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EPL 9852, OSHIKOTO & OTJOZONDJUPA REGIONS

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPL 9852, Oshikoto and Otjozondjupa Regions.

PROPONENT:
KDN Geo-Consulting

COMMODITIES:
Base and Rare Metals, Industrial minerals, precious metals and Semi-precious stones.

LOCALITY:
Approximately 20km East of Tsumeb, with a total area of 78906Ha covering several farmlands including Aandrus 832, Abenab 707, Kliprand 827, Accra 660, Detroit 700 and more.

All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 23rd of December 2024. Registration and Background Information Documents (BID) for the project can be requested from the email address below.

Email: info@enviro-aec.com
Cell: +264 81 435 1689

Alliance

Market Watch
TO ADVERTISE CALL:
Classifieds
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035 Regskennisgewings / Legal Notices

ENVIRONMENTAL SCOPING ASSESSMENT NOTICE TO ALL INTERESTED AND AFFECTED PARTIES Notice is hereby given to all potential interested and/or affected parties (I&APs) that an application will be made to the Environmental Commissioner in terms of the Environmental Management Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN. No. 30 of 6 February 2012) for the following:
Proponent: Omaheke Regional Council
Environmental Assessment Practitioner: Winplan Town and Regional Planning Consultants
Project Name: Township Establishment of Epukiro Proper and Extension 1-5 on Farm 2070, 2071, 2072, Remainder Portion 4 and subdivided portion A and B of the Farm Epukiro Reserve no. 392
Project Location: Epukiro Pos 3
Project Description: Township establishment of 6 new extensions within Epukiro Pos 3 which entails certain listed activities as listed in GN. No. 29 of 2012. Registration of I&APs and submission of comments. In Line with the above-mentioned legislation, all I&APs are hereby invited to register and submit their comments/concerns/questions (to be done in writing) to Winplan Town and Regional
Planning Consultants via the detail given below:
Deadline for registration and submission of comments is 17 January 2025.
Contact Information: Tel: (061) 246 761 / email: planner@winplan.com.na

DM0203400418870

NOTICE OF INTENTION: NOTICE OF INTENTION IN TERMS OF THE URBAN AND REGIONAL PLANNING ACT OF 2018 (ACT 5 OF 2018); SUBDIVISION OF ERF 189, HENTIES BAY, EXT. NO. 1, INTO PORTION A AND REMAINDER;REZONING OF PROPOSED PORTION A FROM SINGLE RESIDENTIAL TO GENERAL BUSINESS; AND CONSOLIDATION OF PROPOSED PORTION A WITH REM/ERF 172 HENTIES BAY EXT. NO. 1 INTO CONSOLIDATED ERF "X".
Please take note that Van Der Westhuizen Town Planning and Properties CC, on behalf of our client, intends to apply to the Henties Bay Municipal Council for the subdivision of Erf 189, Henties Bay, Ext. No. 1, into Portion A and Remainder; rezoning of proposed Portion A from Single Residential to General Business; and consolidation of proposed Portion A with Rem/Erf 172, Henties Bay Ext. No. 1 into consolidated Erf "X".Rem/Erf 178, Henties Bay, is situated along Jakkalsputz Road and currently accommodates the Restaurant and Bar known as Myl 50, Erf189, Henties Bay is situated behind the aforesaid property along Flamink Street. It is the intention to subdivide Erf 189, Henties Bay into Portion A and Remainder, rezone proposed portion A and have it consolidated with Rem/Erf 172, Henties Bay. This will effectively resolve encroachment of previous events In order for the owner to proceed with the intentions it is necessary to formally apply to the Local Authority and the Ministry of Urban and Rural Development for the proposed rezoning of the property. Please further take note that -(a) the plan of the erf can be inspected at the Public Notice Board of the Henties Bay Municipality located on the Corner of Jakkalsputz Road & Nicky Iyambo Avenue. (b) any person having objections to the proposed rezoning or who wants to comment thereon, may lodge such objections and comments, together with the grounds thereof, in writing to the Municipality of Henties Bay and the applicant within 14 days of the last publication of this notice.Please be advised that the written objection must be forwarded within the prescribed time as required by the Urban and Regional Planning Act of 2018. Such written objection or comment must therefore be submitted by no later than 17:00 on 17 December 2024.
Applicant: Van Der Westhuizen Town Planning and Properties cc
Contact Persons: A van der Westhuizen
Cell: 0811224661
Email: andrew@vdwtp.comP.O. Box: 1598, Swakopmund, Namibia

DM0203400418896

035 Regskennisgewings / Legal Notices

NOTICE OF INTENTION: NOTICE OF INTENTION IN TERMS OF THE URBAN AND REGIONAL PLANNING ACT OF 2018 (ACT 5 OF 2018); REZONING OF ERF 591 HENTIES BAY FROM GENERAL RESIDENTIAL 1 WITH A DENSITY OF 1:250M² TO GENERAL RESIDENTIAL 1 WITH A DENSITY OF 1:100M².
Please take note that Van Der Westhuizen Town Planning and Properties CC, on behalf of our client, intends to apply to the Henties Bay Municipal Council for the rezoning of Erf 591, Henties Bay, from General Residential 1 with a density of 1:250m² to General Residential 1 with a density of 1:100m².Erf 591, Henties Bay, currently measures 1 097.9m² in extent and islocated on the corner of Klipvis Street and Duine Lane in the older area of Henties Bay. The property is currently standing vacant and underutilized. It is the intention of the owner to rezone the property and construct eight (8) residential units on the property. The intentions of the client is are in line with the provisions of the Henties Bay Town Planning Scheme. In order for the owner to proceed with the intentions it is necessary to formally apply to the Local Authority and the Ministry of Urban and Rural Development for the proposed rezoning of the property.Please further take note that -(a) the plan of the erf can be inspected at the Public Notice Board of the Henties Bay Municipality located on the Corner of Jakkalsputz Road & Nicky Iyambo Avenue. (b) any person having objections to the proposed rezoning or who wants to comment thereon, may lodge such objections and comments, together with the grounds thereof, in writing to the Municipality of Henties Bay and the applicant within 14 days of the last publication of this notice. Please be advised that the written objection must be forwarded within the prescribed time as required by the Urban and Regional Planning Act of 2018. Such written objection or comment must therefore be submitted by no later than 17:00 on 17 December 2024.
Applicant: Van Der Westhuizen Town Planning & Properties cc
Contact Persons:
A van der Westhuizen
Cell: 081 122 4661
Email: andrew@vdwtp.com
P.O. Box: 1598, Swakopmund, Namibia

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Posted: 2nd December 2024
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Responsibilities
Lead the development of new Renewable Energy Power Projects in Namibia and in Southern Africa: identify new commercial opportunities, reply to tender processes, develop the company project pipeline.
Facilitate commercial negotiations for agreements including land lease agreements (LLA), environmental impact assessments (EIA), regulatory approvals, electrical connection applications and agreements, and in the later stages of project development participate in the process of Equipment Procurement Contracts (EPC), Power Purchase Agreements (PPA) and financing agreements of each project.
Foster working relationships with external consultants, advisors, regulatory authorities, landowners and joint venture partners, convening meetings when necessary and bringing relevant matters to the attention of management;
Keep abreast of Renewable Energy and wider power market developments, monitoring market activities in the RE sector and identifying potential opportunities for, and threats to, the Company's strategy;
Reporting to the French mother company on the progress made on the development, construction and operation of the power plants.

Required Skills & Experience
Engineering / Business Schools profiles required
Master's degree and 5+ years of proven Renewable Energy project development
French skills are compulsory as the candidate will work with a French management
Strong interpersonal and communication skills.
Knowledge of the Renewable Energy / Energy market in Namibia, the Region and Africa
Strong organizational skills
Serious, business-minded, professional mentality
Valid driver license
Ability to succeed in an entrepreneurial environment
Microsoft Office proficiency (Word, Excel, PowerPoint)
Willingness to work a flexible schedule
Attention to detail
Ability to work in a fast paced and dynamic work environment

Preference will be given to those with any of the following:
Passion for Sustainable Development / Renewable Energy
Understanding of solar/wind technologies
Technical engineer sales experiences
Solar system design experience
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Company presentation
InnoSun is a Franco-Namibian company owned at 30% by Namibians and registered in Namibia. InnoSun is the first and largest Independent Power Producer in Namibia. Its aims are to develop, finance construct and operate renewable energy power plants (wind and solar). InnoSun has financed and constructed the Omburu solar power plant, first utility scale solar power plant in the country in 2015, and now operates three solar plants and one wind farm.

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Suitable candidates kindly forward CV's to lmouton@innosun.org

Only shortlisted candidates will be contacted. **Application due date: 16 December 2024**

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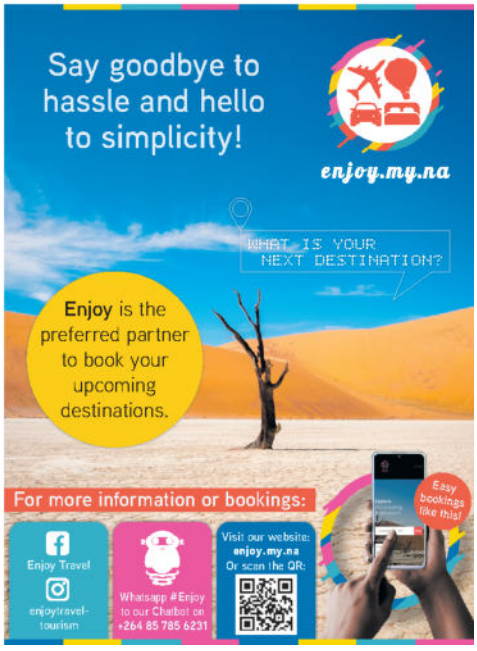

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TODAY IS... INTERNATIONAL ANTI-CORRUPTION DAY

Let's stand united against corruption and celebrate International Anti-Corruption Day on December 9th! This day was first established by the United Nations in 2003, to raise awareness of the negative effects of corruption around the world. It is a chance to reflect on the progress that has been made against corruption and identify new ways to tackle this growing global challenge. With our collective efforts, we can make a difference and create a more just and equitable society for everyone.

009 Vakatures / Vacancies

SENIOR/ PRINCIPAL MARITIME SURVEYOR (Classification Society) DNV is seeking a Senior/Principal Surveyor to be a key player in establishing a new DNV Office in Namibia.
The position will be based in Walvis Bay and report to the DNV Station Manager Africa as part of the Middle East, Africa & Southeast Europe Operations.
Primary Duties:
- Production activities (70% of role).
- Stakeholder Management and Business Development.
- Statutory Compliance Support to Legal Entity.
- Management of local team.
Key Responsibilities include:- Fleet in Service (FiS) Ship Surveys in particular: Offshore Support Vessels, Offshore Construction Vessels, Container and Fishing Vessels.
- Fleet in Service (FiS) Offshore Surveys in particular: Semi-Submersible Drilling Units (High Spec), Drill-shipsand Floating Production Units.
- Safety Management Systems Audits (office and vessels) to ISM/ISPS/MLC codes.
- Certification of Materials and Components including offshore equipment especially drilling and Well test equipment
- Certification of Companies to International and DNV Rules involved with carrying services with respect to radio surveys, diving and in water inspection, NDT services and inspection and repair of lifesaving and firefighting equipment.
- Support to existing and new companies in DNV approval of welding services (procedures and qualifications)
- Customer management and business development with Local and Global Key clients and other relevant parts of the DNV organization
- Drive the establishment of DNV in Namibia through stakeholder engagement with regulators, ministries, maritime industry, local and key global customers.
- Support the Statutory compliance activities of the DNV Legal entity in Namibia.
- Hire, Train and Manage local technical and administrative employees in country.
- Business Travel to other parts of Africa may occasionally be required.
Key Attributes:
- Namibian National.
- Bachelor of Engineering in Mechanical /Marine or Naval Architecture or equivalent Marine Qualifications.
- A minimum of 10 years of related experience within an IACS Classification Society.
- Expert Proficiency in English is mandatory. In addition, fluency in French, Portuguese, Dutch or Afrikaans would be an advantage.
- Goal and solution-oriented mindset with self-motivation, with a proactive, resilient and "can do" attitude.
- Able to work under pressure, independently and as a team player with the rest of Station Africa as the work dictates with high professional integrity.
- Adaptable and flexible to client's schedule to meet their needs.
- Line Management experience would be an advantage.
- Business Development and Client management experience at senior levels would be an advantage.
- Presentation confidence and experience with public speaking (seminars and events) would be an advantage.
What we Offer
The opportunity to be part of a team driving a new DNV Office in a country with huge potential in Offshore Oil and Gas, with the chance to shape this growth with respect to DNV's suite of decarbonization services. A demanding but rewarding job with high responsibility for the execution of surveys and audits onboard different floating offshore units and ship types. A hybrid working solution allowing the candidates to best manage their time around work requirements and home life commitments. The opportunity to grow and develop personally and professionally beyond traditional Maritime Production activities to include Management, Business Development, Training and responsibilities in country wrt compliance, safety, HR and Finance.
Applications.
- DNV is an Equal Opportunity Employer.
- Applications to be emailed to careers@dnv.com
Closing date: 14 days from placement of advertisement.

DM020240049070

009 Vakatures / Vacancies

WARRANTY ADMINISTRATOR Responsibilities include:
-Administrative Duties
-Warranty administration
-Creditors and Debtors
-Workshop administrative duties
-Invoicing
-Stock Control
Requirements: A minimum of 5 years' experience.
Please send your CV to: anton@namaudiomecca.com
Closing Date: 11 December 2024.

DM020240049034

Philip Swanepoel Legal Practitioners hereby invites suitably admitted legal practitioners, with a minimum of two years' experience, to apply for the vacant position of Legal Practitioner at our firm. Commencement date 1 February 2025.This position is for you, if you want to move on and excel in your legal career. An ideal steppingstone to work independently and maybe start your own legal practice in the near future.
Minimum Requirements
• LLB Degree;
• Admission as a legal practitioner;
• Post-admission experience (2 to 3 years);
• Experience in litigation, drafting and commercial work;
• Ability to work under pressure and independently with minimum supervision;
• The legal practitioner must be be self-driven and focused on client service.
We look forward to receiving your CV via email (philip.swanepoel@iway.na)

DM020240049073

VOLUNTEER OPPORTUNITIES: Theological Training Officers
DEGNOS is seeking Ordained Ministers from the Dutch Reformed Church or Reformed Church to join our mission in providing theological training in Namibia. This role involves serving within the DEGNOS ministry area and Kunene for Christ, focusing on rural communities.
Key Requirements:
-Ordained Minister of the Dutch Reformed or Reformed Church.
-Previous experience in Orality Training is highly advantageous.
-Must be comfortable working in rural and remote areas such as Tsumkwe, Opuwa, and Divundu, with occasional camping in the bush.
-Availability for a minimum of 8 weeks per year.
-Own transport is preferred, though assistance with accommodation, food, and transport will be provided.
-Ability to work out of Grootfontein, covering the following regions: Zambezi Region, Kavango East and West Regions, Otjozondjupa Region, Omaheke Region, Oshikoto Region, Kunene Region
Role Overview: As a volunteer, you will play a vital role in advancing theological education and spreading the Word in underserved areas. Please note that this is an unpaid position.
How to Apply: Submit a complete CV to: DEGNOS Grootfontein at: Email: gousandries74@gmail.com
Contact: 081 361 2480
Closing Date: 15 January 2025.

DM020240049075

009 Vakatures / Vacancies

ENGINEERING SERVICES cc

VACANCY
MACHINE SHOP FOREMAN

- Valid Driver's License
- Must be qualified as a fitter and turner machinist
- Must have held a foreman position before
- Must be able to work independently
- Must have at least 10 years' experience working in the machine shop
- Must be willing to work weekends and overtime

Interested applicants can mail their CV to wmengingeeringservices@gmail.com
(No hand-delivered CV's will be accepted)

ACHILL ISLAND INVESTMENTS (PTY) LTD PRODUCTION MANAGER
An excellent opportunity exists for a hardworking and motivated individual to join our company. Achill Island Investments Pty Ltd, a large table grape farming operation, is situated 50 km from the South Africa and Namibia Border Post in Aussenkehr, Namibia.
Production Manager Responsibilities:
- Assist the Managing Director in all aspects of their responsibilities at an operational level on the farm.
- Oversight of production team wh ch includes a large labour force of both seasonal and permanent employees.
- Oversight of all technical matters related to the production of grapes including nutrition programs, disease and pest control, packing protocols, etc.
Qualifications and requirements:
- Suitable qualifications with at least 10 years' experience in table grape production
- Be a good communicator, able to work under pressure, computer literate and willing to work abnormal hours as and when required
- Intimate knowledge and experience of growing SNFL, Arra and IFG varieties
Please submit an application letter & your cv to reception@silverlands.com before or on 16 December 2024.
Correspondence will be limited to short-listed candidates. If you have not been contacted within one month of application, please accept that your application was unsuccessful.

DM020240049076

028 Huise te koop / Residential Prop. for Sale

KHOMASDAL: Close to all amenities, 414m2
-3 Bedroom with BIC
-Main en-suite
-Big kitchen with BIC plus stove
-Lounge
-Toilet with bath
-2x flats with income of N$7 500 per month.
Pre-approved clients.
Contact: 081-2309039.

DM020240049065

028 Huise te koop / Residential Prop. for Sale

EROS: Close to all amenities (Very Neat) 1057m2. 5 Bedroom house, 2 backyard flats (2 bedrooms plus 1 bed), main bedroom en-suite (full bathroom), walk-in closet with BIC, lounge- spacious with dining (aircon), kitchen- spacious with a lot of BIC plus stove, toilet with bath plus seperate shower, sevants quarter with toilet and shower, single garage, enough parking space.Selling below valuation N$3 850 million cost including. Extra income N$12 500.
Contact: 081-2309039 for viewing. Pre-approved clients.

DM020240049064

035 Regskennisgewings / Legal Notices

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EPL 9852, OSHIKOTO & OTJOZONDJUPA REGIONS

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPL 9852, Oshikoto and Otjozondjupa Regions.

PROPONENT:
KDN Geo-Consulting

COMMODITIES:
Base and Rare Metals, Industrial minerals, precious metals and Semi-precious stones.

LOCALITY:
Approximately 20km East of Tsumeb, with a total area of 78906Ha covering several farmlands including Aandrus 832, Abenab 707, Kliprand 827, Accra 660, Detroit 700 and more.

All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 23rd of December 2024. Registration and Background Information Documents (BID) for the project can be requested from the email address below.

Email: info@enviro-aec.com
Cell: +264 81 435 1689

Alliance ENVIRONMENTAL CONSULTANCY

035 Regskennisgewings / Legal Notices

NOTICE Take note that Ms. Hilaria T.S Kevanhu, acting on behalf of the property owners and in accordance with the Urban and Regional Planning Act, 2018 (Act No. 5 of 2018) and the Mariental Zoning Scheme, intends to submit an application to the Mariental Municipality and the Urban and Regional Planning Board for the following: Rezoning of Erf 222 Empelheim, Mariental from "Business" to "Residential" with a density of 1:300. Consent to start development in line with the proposed zoning while the rezoning is in progress. Inclusion of rezoning in the next Mariental Zoning Scheme.Erf 222 is located in Empelheim Extension 2, along Snel Road and measures 735m² in extent.According to the Mariental Zoning Scheme, Erf 222 Empelheim Extension 2 is zoned'Business' and is presently vacant. The proposed rezoning of the respective Erf from"Business" to "Residential" with a density of 1/300m² will enable the property owner to construct two (2) dwellings on the property. Please take note that the intention to rezone shall duly be published in the Government Gazette and is affixed on site. In addition, a copy of the relevant plans is affixed for inspection on the Mariental Municipality Notice Board. The neighbouring erf owner/s/occupants have also been duly notified.Lastly, take note that any person objecting to the proposed statutory procedures as set out above, may lodge such objection together with grounds thereof, with the Applicant or the CEO of the Mariental Municipality in writing on or before the Thursday, 02 January 2025.
APPLICANT: Ms. Hilaria T. S. Kevanhu
Urban & Regional Planner
P. O. Box 798
Swakopmund
0813236024
htskevanhu@gmail.com

DM020240049013

FIVE STOREY DWELLING APPLICATION Take note that the owner, GC Mlunga, intends to apply to the Windhoek Municipal Council for the construction of a three-storey dwelling of Erf 257, Gamsa Street, Kleine Kuppe. The proposed construction will allow the owner to erect a three-storey dwelling on Erf 257.The owner's current intention is to erect Erf 257 for private purposes.Further take notice that the plan for the erf lies for inspection on the town planning noticeboard in the Customer Care Centre, Main Municipal Offices, Rev. Michael Scott Street, Windhoek.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 City and with the applicant/consultant in writing within 21 calendar days of the last publication of this notice.The last date for any objection is 12 December 2024.
Dated at Windhoek this 21 day of November 2024.
Pieter Mostert Argitek
Tel 061-238603
PO Box 97297,Windhoek

DM020240049074

Market Watch Kleinadvertensies • Classifieds

SPERTYE: 13:00 TWEE WERKSDAE VOOR PLASING
DEADLINES: 13:00 TWO WORKING DAYS PRIOR TO PLACEMENT
Geen advertensies sal telefonies aanvaar word nie.

TEL: 061*297 2175 **FAX:** 061*239 638
EMAIL: classifieds@synergi.com.na
No advertisements will be accepted telephonically.

INHOUDSOPGAWE / CONTENTS

RATES & DEADLINES

To avoid disappointment of an advertisement not appearing on the date you wish, please book timeously. Classified smalls, notices and display smalls: 13:00, two working days prior to placing. A handling fee of 15% is payable on cancellations received in writing by 13:00 two days before scheduled publication. No cancellation will be accepted if received after this deadline.

RATES: (Monday – Friday)
- Classifieds Smalls: N$105 for the first 20 words and N$2.40 (15% Vat included) for every word thereafter
- Display Smalls: N$108.10 per col/cm (15% Vat included)
- School notices: N$66.70 (15% Vat included) per col/cm
- Churches: N$66.70 (15% Vat included) per col/cm
- Sport Clubs: N$66.70 (15% Vat included) per col/cm
- Births, engagements, marriages, deaths, In memoriam: N$66.70 (15% Vat included) per col/cm
- Legal Notices: N$697 for the first 300 words and N$2.40 (15% Vat included) for every word thereafter

CONDITIONS OF ACCEPTANCE: Republikein reserves the right to withhold or cancel any advertisement order that has been accepted. Republikein accepts no liability for failure to publish an advertisement received by telephone.

ERRORS: Please report errors immediately. Republikein accepts no responsibility for more than one incorrect insertion of any advertisement of any cost beyond the cost of the space occupied by the faulty advertisement. No re-publication will be given due to small typographical errors which do not lessen the effectiveness of the advertisement. Republikein does not accept responsibility for misrepresentation in advertisements.

BOOK & PAY FOR YOUR CLASSIFIED ADS ONLINE

Visit https://classifieds.my.na log in via your my.na account and follow the easy steps to upload your classified ad.

Gingerbread houses are a favorite holiday pastime with families, be it with parents, grandparents, or even both! But these delicious, decorative bread houses have always been a staple of the holiday season for as long as people can remember. Where did they come from? Who came up with the idea? To answer those questions, we must follow the ghost of holiday's past into the history of Gingerbread House Day!

009 Vakatures / Vacancies

CARWASH DRIVERS: Various positions available, (valid driver's license required), car washer cleaners, as well as cleaners for office and building cleaning in Windhoek. Send your CV/contact details via SMS or Whatsapp to: 081-3984800. Only shortlisted candidates will be contacted.
DM0202200407261

010 Spesiale dienste / Services

DO YOU URGENTLY NEED CASH? Park your car and get up to 45% of it's value! Cash in your account in 30 min! No payslip, no bank statement, just the car! Autocash 061-400676. It's that simple!
DM0202200406803

013 Bou en verf / Construction

SPECIALS, SPECIALS, SPECIALS! Adriaan Oberholzer: Building & renovations. Specializes in roof sealing, painting, plumbing, building, paving, welding, etc. Call 081-4909420.
DM0202200406379

016 Te huur / To Let

EON REAL ESTATE: Moth Centre (Maerua Mall). Up-market, 1 bedroom flat on first floor, under roof parking. N$7 500 available December. Annelize: 081-1285451.
Otjomuise Mainstay Complex Beijing Street 104-110. Newly renovated 2 bedroom ground floor unit. N$5 500.
DM0202200407237

035 Regskennisgewings / Legal Notices

LIQUIDATION ACCOUNTS AND PLANS OF DISTRIBUTION OR CONTRIBUTION IN SEQUESTRTED ESTATESOR COMPANIES BEING WOUND UP Pursuant to section 412 of the Companies Act 2004 (as amended) notice ishereby given that the liquidation accounts and plans of distribution or contribution in the estates orcompanies/cooperatives mentioned below, will lie for inspection of creditors at the offices of the Master of the HighCourt, John Meinert Street, Windhoek. The particulars given are the following order: Name and description ofestate/company, description of account, place of account lying for inspection.
W 34/2021 Nedcapital Investment Holdings (Pty) Ltd (in voluntary liquidation). First and Final Liquidation andDistribution Account. Office of the Master of the High Court, Windhoek for a period of 14 days as from 9 December2022.
H. D. Bossau, Liquidator,
H.D. Bossau & Co.,
P. O. Box 1975,
Windhoek.
DM0202200407262

035 Regskennisgewings / Legal Notices

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTIMG LICENCE (EPL) 8739, KHOMAS REGION

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPL 8739, Khomas Region.

Proponent: Etna Investments CC

Commodities: Base and Rare Metals, Dimension stone, Industrial minerals, precious metals and Semi-precious stones.

Locality: Between Rehoboth and Windhoek Covering portions of farms: 20 krumneck, 23 Lichtenstein Zukauf, 30 Krumhuk, 366,433/4,446 Lichtenstein, 367 Haris, 368 Melrose, 447 Gross Haigamas

All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 30 January 2023. Registration and Background Information Documents (BID) for the project can be requested from the email address below.

Email: info@enviro-aec.com
Cell: +264857728929

Alliance Environmental Consultancy

035 Regskennisgewings / Legal Notices

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTIMG LICENCE (EPL) 9110, OSHIKOTO & OTJOZONDJUPA REGIONS

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPL 9110, Oshikoto and Otjozondjupa Regions.

Proponent: Philco One Hundred and Seventy-Three (Pty) Ltd

Commodities: Base and Rare Metals, Industrial minerals, precious metals and Semi-precious stones.

Locality: Approximately 20km East of Tsumeb, covering a total area of 78906 Ha on about 50 farmlands including Aandrus 832, Abenab 707, Kliprand 827, Accra 660, Detroit 700 and more

All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 30 January 2023. Registration and Background Information Documents (BID) for the project can be requested from the email address below.

Email: info@enviro-aec.com
Cell: +264857728929

Alliance Environmental Consultancy

Market Watch Kleinadvertensies • Classifieds

SPERTYE: 13:00 TWEE WERKSDAE VOOR PLASING
DEADLINES: 13:00 TWO WORKING DAYS PRIOR TO PLACEMENT
Geen advertensies sal telefonies aanvaar word nie.

TEL: 061*297 2175 **FAX:** 061*239 638
EMAIL: classifieds@synergi.com.na
No advertisements will be accepted telephonically.

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- School notices: N$66.70 (15% Vat included) per col/cm
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- Births, engagements, marriages, deaths, In memoriam: N$66.70 (15% Vat included) per col/cm
- Legal Notices: N$697 for the first 300 words and N$2.40 (15% Vat included) for every word thereafter

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BOOK & PAY FOR YOUR CLASSIFIED ADS ONLINE

Visit https://classifieds.my.na * log in via your my.na account and follow the easy steps to upload your classified ad.

005 Kennisgewings / Notices

WECKE VOIGTS: Okakuveru-as back in stock, various co-lors available, price N$ 2 100, at Wecke & Voigts for you, shop 1. Maerua Lifestyle Center Wind-hoek. Tel:061-377000.
DM0202200407344

009 Vakatures / Vacancies

SHIPPING & BIOMASS DE-VELOPMENT CONSULTANT: An exciting new opportunity has arisen with Fire and Flame Namibia (Pty) Ltd, a charcoal exporting and biomass trading company.
The candidate's primary role will be managing the day to day shipping and logistic ope-rations ensuring that products are packaged to the highest standard of quality and on time. The secondary role of the can-didate, is a business develop-ment role in international mar-kets.
This requires: *Working well under pressure.
*Working towards and achie-ving deadlines.
*Working outside of the traditi-onal office hours.
*Researching new opportuni-ties in the biomass sector.
*Making sales projections, fo-recasting revenue in line with projected income.

The position is based in Wal-vis Bay.
Job requirements: *Relevant Degree and 5 years experi-ence, or professional Diploma and 7 years experience in Glo-bal Shipping, Logistics and Dis-tribution.
*Experience with Dynamics 365 Business Central.
*Previous experience working in Charcoal or Biomass indus-try.
*Ability to work with Internatio-nal cross function teams.
*Highly skilled in Microsoft of-fice applications (Word, Excel, Powerpoint.)
*Up to date knowledge of IN-COTERMS 2020.
*Business development experi-ence or finance background es-sential.
*Drivers licence required (Mini-mum Code B).
*Strong English language skills.
Interested candidates can send electronic copies of their CV and supporting documents to info@fireandflame-namibia.comwith reference "Vaccancy" in the subject line.
Only shortlisted candidates will be contacted. Applications close on 23 December2022 at 12h00.
DM0202200407345

NOC, is seeking a qualified Clinical & Radiation Oncologist to join the team.
Minimum requirements:
* Current registration with the Medical and Dental Councils of Namibia.
* Minimum of 8 years clinical oncology experience.
* Strong organisational skills and leadership skills.
* Proven work ethic and ability to work under pressure.
* Namibian citizenship or resi-dency status.
Candidates who meet the abo-ve minimum requirements may submit applications to: HR@na-moncology.com. Closing date: 30 December 2022.
DM0202200407325

009 Vakatures / Vacancies

NOC, is seeking a qualified Lead Radiation Therapists to join the team.
Minimum requirements:
* A relevant Degree in Thera-peutic Radiography or equiva-lent.
* Minimum 5 years clinical ex-perience, recent clinical experi-ence working with linear acce-lerators.
* Experience in VMAT/Rapi-dArc/advanced treatment tech-niques.
* Experience with Mosaiq soft-ware and Elekta linacs prefer-red.
* Experience in treatment plan-ning is advantageous.
* Working experience within Private Health care Institution advantageous.
* Strong organisational skills & leadership skills.
* Proven work ethic and ability to work under pressure.
* Excellent written and verbal communication skills with the ability to effectively commu-nicate with patients and colle-agues.
* Fluency in English, additional languages will be an advantage.
* Demonstrable evidence of IT skills.
* Current registration with the Allied Health Professions Coun-cil division of the Health Profes-sions Council of Namibia.
* Namibian citizenship or resi-dency status.
Candidates who meet the abo-ve minimum requirements may submit applications to: HR@na-moncology.com.
Closing date: 30 December 2022.
DM0202200407324

010 Spesiale dienste / Services

DO YOU URGENTLY NEED CASH? Park your car and get up to 45% of it's value! Cash in your account in 30 min! No payslip, no bank statement, just the car! Autocash 061-400676. It's that simple!
DM0202200406803

013 Bou en verf / Construction

SPECIALS, SPECIALS, SPECI-ALS! Adriaan Oberholzer: Build-ding & renovations. Specializes in roof sealing, painting, plum-bing, building, paving, welding, etc. Call 081-4909420.
DM0202200406319

016 Te huur / To Let

ACADEMIA: Bachelor flat to rent near Unam for single per-son. N$4 750 per month, N$2 500 deposit. Available 1 Janu-ary 2023 W+E included. Call: 085-6324515 / 081-1279096.
DM0202200407310

REHOBOTH: 2 slaapkamer huis, Block F. Ingeboude kaste + stoof, krag en water pre-paid. N$ 3 800. Kontak: 081-3030062
DM0202200407343

025 Motors / Vehicles

Mercedes-Benz
C200; 2020
57 000 km
NOW N$ 644 900
Tamara-Lee Pienaar:
081 202 6062

035 Regskennisgewings / Legal Notices

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTING LICENCE (EPL) 8739, KHOMAS REGION

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regula-tions for the proposed prospecting activities within EPL 8739, Khomas Region.

Proponent: Etna Investments CC

Commodities: Base and Rare Metals, Dimension stone, Indus-trial minerals, precious metals and Semi-precious stones.

Locality: Between Rehoboth and Windhoek Covering portions of farms: 20 krumneck, 23 Lichtenstein Zukauf, 30 Krumhuk, 366,433/4,446 Lichtenstein, 367 Haris, 368 Melrose, 447 Gross Haigamas

All Interested and Affected Parties (I&APs) are hereby invited to reg-ister and submit comments duly motivated in writing on or before the 30 January 2023. Registration and Background Information Documents (BID) for the project can be request-ed from the email address below.

Email: info@enviro-aec.com
Cell: +264857728929

Alliance ENVIRONMENTAL CONSULTANCY

035 Regskennisgewings / Legal Notices

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTING LICENCE (EPL) 9110, OSHIKOTO & OTJOZONDJUPA REGIONS

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPL 9110, Oshikoto and Otjo-zondjupa Regions.

Proponent: Philco One Hundred and Seventy-Three (Pty) Ltd

Commodities: Base and Rare Metals, Industrial minerals, precious metals and Semi-precious stones.

Locality: Approximately 20km East of Tsumeb, covering a total area of 78906 Ha on about 50 farmlands including Aandrus 832, Abenab 707, Kliprand 827, Accra 660, Detroit 700 and more

All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly moti-vated in writing on or before the 30 January 2023. Registration and Back-ground Information Documents (BID) for the project can be requested from the email address below.

Email: info@enviro-aec.com
Cell: +264857728929

Alliance ENVIRONMENTAL CONSULTANCY

Nobel awards to take place in Stockholm with full glitz and glamour

Nobel laureates congregated in the Swedish capital Stockholm on Saturday for the first fully in-person award ceremonies complete with a formal banquet since the COVID-19 pandemic that curtailed events in the past two years.

The ceremony starts at 1500 GMT and features glamorous formal wear, with the men in white tie and tails and women in flowing gowns and elegant hairdos. Ceremonies in 2020 and 2021 were scaled back and there was no banquet. Many laureates from 2020 and 2021 will be attending this year as well as the 2022 winners – last year for example there was a ceremony but no laureates attended as they received their medals in their home countries.

Throughout this week the laureates have taken part in activities ranging from panel discussions to news conferences, finding time to visit schools and give lectures and attend alights show. "Given the challenges the world faces, it feels especially important to highlight Alfred Nobel's idea of international community," says Vidar Helgesen, executive director of the Nobel Foundation.

Five of the six Nobel prizes are awarded in Stockholm every year after a nomination process that is kept secret for the next 50 years. The Nobel Peace Prize is awarded in Oslo where separate festivities are held. Dynamite inventor Alfred Nobel left around 31 million crowns- about 1.8 billion crowns ($174.2 million) in today's money according to the Foundation – to fund prizes for achievements in science, literature and peace awarded annually since 1901.

Among the laureates for 2022 is a former chairman of U.S.Federal Reserve, Ben Bernanke, who won the Nobel Economics Prize along with economists Douglas Diamond and Philip Dybvig for research on how propping up failing banks can stave off an even deeper economic crisis. The economics prize is a later addition to the original line-up, instituted by the Swedish central bank.

After the ceremony, there is a banquet in City Hall, attended by Sweden's royal family, government officials and dignitaries and business leaders from different countries. Swedish political party leaders are always invited to the banquet.

However Jimmie Akesson, leader of the anti-immigration Sweden Democrats, which became the country's second biggest party in an election in September election, was left off the guest list, with his party not deemed to be in keeping with the prizes' tenets.

The Nobel Foundation has also snubbed the ambassadors of Russia and Belarus, following Russia's invasion of Ukraine. Jailed Belarusian activist Ales Byalyatski, Russian rights group Memorial and Ukraine's Center for Civil Liberties won the 2022 Nobel Peace Prize.($1 = 10.3329 Swedish crowns) -iol

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTIMG LICENCE (EPL) 8739, KHOMAS REGION

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Proponent: Etna Investments CC

Commodities: Base and Rare Metals, Dimension stone, Industrial minerals, precious metals and Semi-precious stones.

Locality: Between Rehoboth and Windhoek Covering portions of farms: 20 krumneck, 23 Lichtenstein Zukauf, 30 Krumhuk, 366,433/4,446 Lichtenstein, 367 Haris, 368 Melrose, 447 Gross Haigamas

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Alliance ENVIRONMENTAL CONSULTANCY

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTIMG LICENCE (EPL) 9110, OSHIKOTO & OTJOZONDJUPA REGIONS

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPL 9110, Oshikoto and Otjozondjupa Regions.

Proponent: Philco One Hundred and Seventy-Three (Pty) Ltd

Commodities: Base and Rare Metals, Industrial minerals, precious metals and Semi-precious stones.

Locality: Approximately 20km East of Tsumeb, covering a total area of 78906 Ha on about 50 farmlands including Aandrus 832, Abenab 707, Kliprand 827, Accra 660, Detroit 700 and more.

All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 30 January 2023. Registration and Background Information Documents (BID) for the project can be requested from the email address below.

Email: info@enviro-aec.com
Cell: +264857728929

Alliance ENVIRONMENTAL CONSULTANCY

LIFESTYLE

Can rice water strengthen and improve your hair growth?

The practice of "dry scooping", or ingesting pre-workout powders without water, has become dangerously popular among TikTok users.

Some individuals assert that dry scooping might hasten your body's absorption of the chemicals and improve your exercise, but there is no scientific basis for these assertions.

Additionally, there are a number of possible hazards associated with this technique, some of which may be significant.

Pre-workout powders are nutritional supplements designed to improve your workout by maybe offering certain advantages.

Increased training capacity, improved blood supply to working muscles, and prevention of weariness are a few of them.

Pre-workout substances that are often used include, according to the National Centre for Biotechnology Information, the following:

Caffeine increases vitality and concentration while reducing weariness.

Creatine may boost training adaptations and high-intensity exercise performance.

Beta-alanine may improve one's capacity for high-intensity exercise and serves as a pH buffer for lactic acid.

L-theanine is frequently used to counteract the jittery effects of caffeine and to increase attention.

L-arginine is a precursor to nitric oxide, which increases vascularity and blood flow throughout the body.

Citrulline malate is a renowned nitric oxide booster that the body easily converts to L-arginine.

Branched chain amino acids are particular amino acids that are frequently given to help in muscle protein synthesis and to stop muscle breakdown, but there is conflicting evidence about their efficacy.

Although pre-workout supplements gained popularity in the bodybuilding community, athletes from other sports also take them. The majority of manufacturers advise drinking the pre-workout supplement around 30 minutes before exercising, after combining it with water.

The majority of pre-workout powders are made to be dissolved in water. There are certain potentially dangerous health hazards when ingesting them dry.

Additionally, pre-workout powders often target adults over the age of 18 owing to their high caffeine content, which can be harmful if used in excess. Additionally, pre-workout supplements could have potentially dangerous ingredients.

Due to the participation of children, this makes the TikTok habit of dry scooping much more hazardous.

Here are the main dangers associated with dry scooping pre-workout powders and the reasons why TikTok specialists strongly advise against it.

Accidental inhalation

You run a higher danger of inhaling pre-workout powder while attempting to swallow it without water.

You might not be able to swallow pre-workout powder after putting a scoop in your mouth owing to its gritty feel. You could gasp for air as a result, inhaling powder into your lungs and nasal passages.

Aspiration is what that is. In extreme circumstances, it may cause lung irritation or infection.

Heart-related side effects

The amount of caffeine in many pre-workout supplements can surpass 300mg per serving. That's comparable to the amount of caffeine found in three 237ml cups of coffee.

When the powder is combined with water and ingested gradually, the majority of individuals might be able to take this level of caffeine; nevertheless, dry scoops delivers a massive dosage of caffeine to your body at once.

Many individuals could find it to be too much to manage, especially those who are younger than 18. Such a high caffeine intake might cause severe blood pressure increases and uncontrolled heartbeats.

There has been at least one reported example of a social media influencer getting a heart attack from dry scooping a pre-workout powder.

Intestinal problems

Digestive problems have also been mentioned as a dry scooping disadvantage.

The sudden, massive ingestion of undiluted drugs with little fluids can cause symptoms including nausea, vomiting, diarrhoea and stomach cramps.

The majority of people may avoid these problems by simply blending the supplement with water.

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTIMG LICENCE (EPL) 8739, KHOMAS REGION

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPL 8739, Khomas Region.

Proponent: Etna Investments CC

Commodities: Base and Rare Metals, Dimension stone, Industrial minerals, precious metals and Semi-precious stones.

Locality: Between Rehoboth and Windhoek Covering portions of farms: 20 krumneck, 23 Lichtenstein Zukauf, 30 Krumhuk, 366,433/4,446 Lichtenstein, 367 Haris, 368 Melrose, 447 Gross Haigamas

All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 30 January 2023. Registration and Background Information Documents (BID) for the project can be requested from the email address below.

Email: info@enviro-aec.com
Cell: +264857728929

Alliance ENVIRONMENTAL CONSULTANCY

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED MINERALS PROSPECTING ACTIVITIES WITHIN EXCLUSIVE PROSPECTIMG LICENCE (EPL) 9110, OSHIKOTO & OTJOZONDJUPA REGIONS

On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPL 9110, Oshikoto and Otjozondjupa Regions.

Proponent: Philco One Hundred and Seventy-Three (Pty) Ltd

Commodities: Base and Rare Metals, Industrial minerals, precious metals and Semi-precious stones.

Locality: Approximately 20km East of Tsumeb, covering a total area of 78906 Ha on about 50 farmlands including Aandrus 832, Abenab 707, Kliprand 827, Accra 660, Detroit 700 and more.

All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 30 January 2023. Registration and Background Information Documents (BID) for the project can be requested from the email address below.

Email: info@enviro-aec.com
Cell: +264857728929

Alliance ENVIRONMENTAL CONSULTANCY

SITE NOTICES PLACED AT DIFFERENT PLACES AROUND TSUMEB

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED EXPLORATION ACTIVITIES WITHIN EXCLUSIVE PROSPECTING LICENCE (EPL) 9110 OSHIKOTO AND OTJOZONDJUPA REGIONS

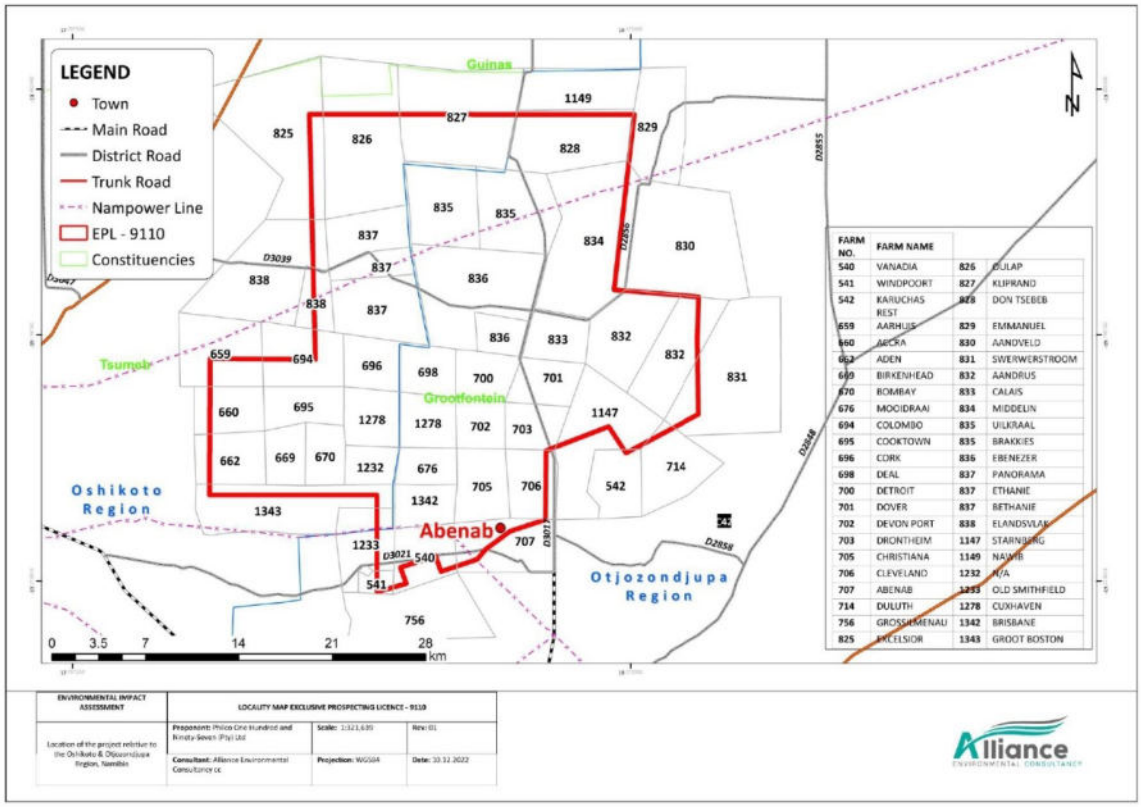
On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPL 9110.

An Environmental Scoping and Impact Assessment (ESIA) and Draft Environmental Management Plan (EMP) will be submitted to the Ministry of Mines and Energy (MME) and the Ministry of Environment Forestry and Tourism (MEFT) to support the application for an Environmental Clearance Certificate (ECC) for the proposed activities.

Proponent: Philco One Hundred and Seventy-Three (Pty) Ltd

Commodities: Base and rare metals, industrial minerals, precious metals and, semi-precious stones

Location of the project area: Approximately 16km East of Tsumeb and about 30km North of Grootfontein covering a large area of farmlands (Fg1).



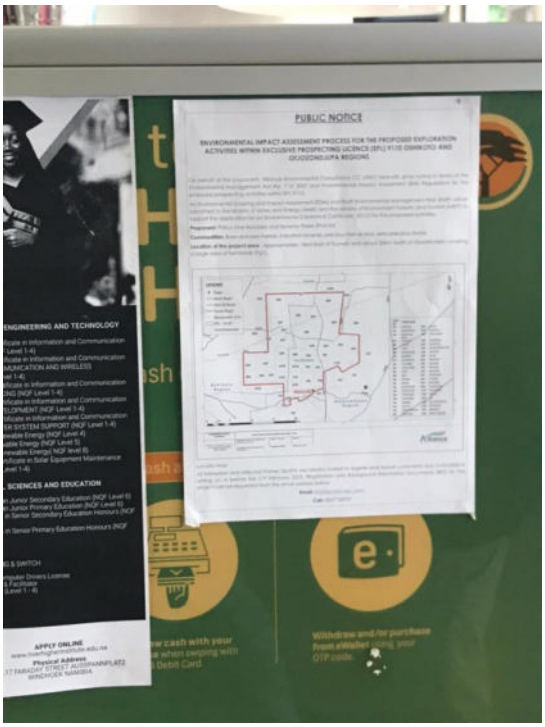
Locality Map

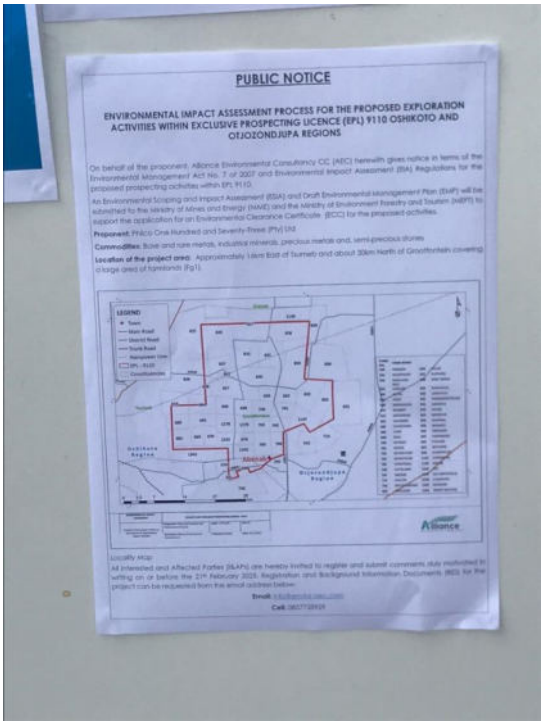
All Interested and Affected Parties (I&APs) are hereby invited to register and submit comments duly motivated in writing on or before the 21th February 2023. Registration and Background Information Documents (BID) for the project can be requested from the email address below.

Email: info@enviro-aec.com

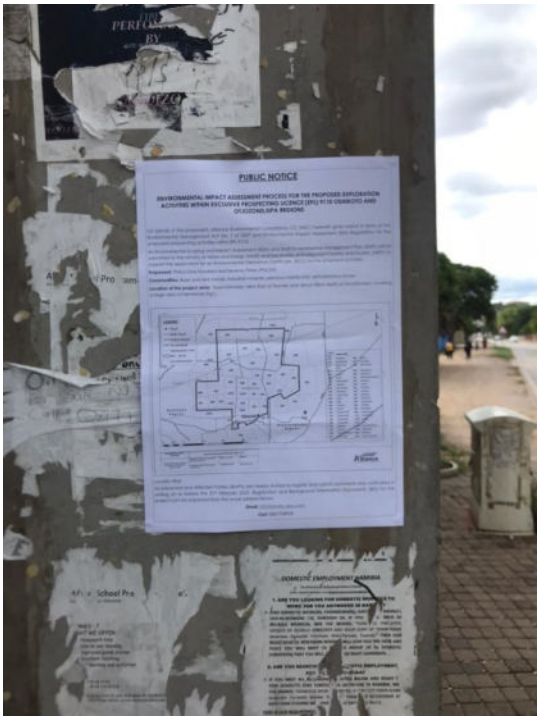
Cell: 0857728929

WIMPY ENGINE SERVICE STATION NOTICE BOARD

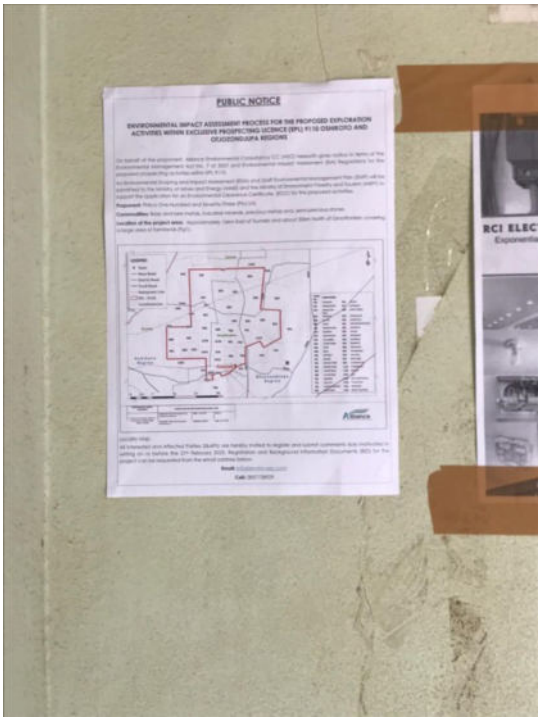




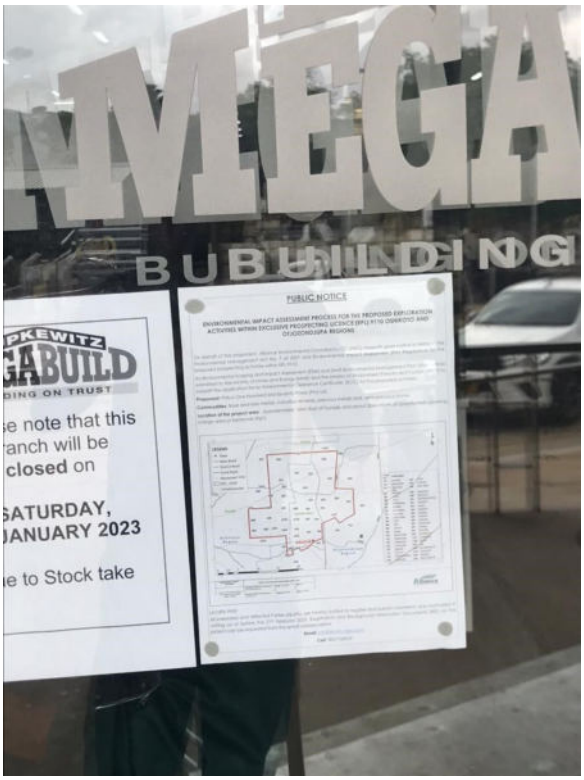
COMMUNITY OPEN MARKET NOTICE BOARD



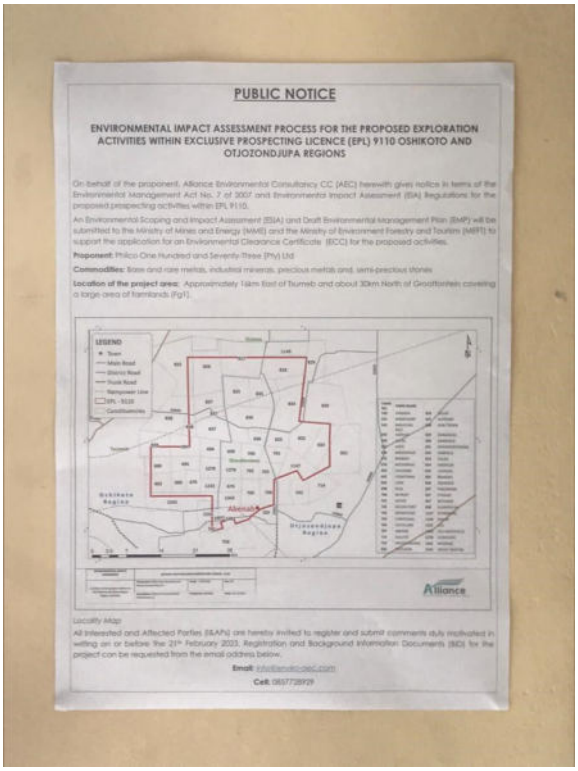
POLICE STATION NOTICE BOARD



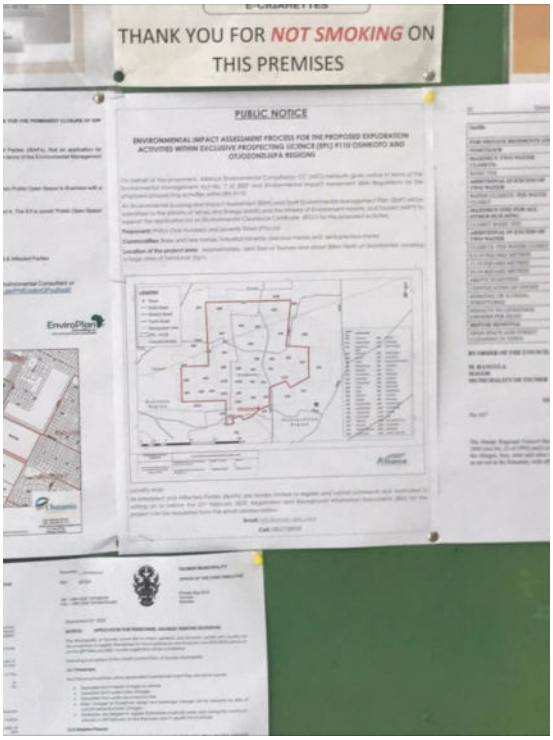
PUPKEWITZ MEGA BUILD NOTICE BOARD



AGRA NOTICE BOARD



TSUMEB MUNICIPALITY NOTICE BOARD



FORMAL INVITATION LETTERS/EMAIL TO IDENTIFIED I&APS

Alliance
ENVIRONMENTAL CONSULTANCY

+264 81 435 1689 / +264 85 772 8929 info@enviro-aec.com

Postal Address: P. O. Box 51006, Bachbretcht, Windhoek, Namibia

17th of January 2023

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: STAKEHOLDER NOTIFICATION - ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED MINERALS PROSPECTING WITHIN EXCLUSIVE PROSPECTING LICENSE (EPL) No. 9110 NEAR TSUMEB IN THE OSHIKOTO AND OTJOZONDJUPA REGIONS, NAMIBIA

Alliance Environmental Consultancy CC hereby gives notice on behalf of Philco One Hundred and Seventy-Three (Pty) Ltd ("The Proponent) about the Environmental Impact Assessment (EIA) process for the proposed exploration activities for base and rare metals, industrial minerals, precious metals and, semi-precious stones on Exclusive Prospective License (EPL) 9110 near Tsumeb, in the Oshikoto and Otjozondjupa Regions (Figure 1).

The proposed prospecting activities are listed in the Environmental Management Act, 2007, (Act No. 7 of 2007) and the EIA Regulations 30 of 2012 and cannot be undertaken without an Environmental Clearance Certificate (ECC). In fulfilment of these environmental requirements, an Environmental Scoping and Assessment Report (ESAR) and Environmental Management Plan (EMP) will be submitted to the Ministry of Mines Energy (MME) and Ministry of Environment Forestry and Tourism in support of the application for an ECC.

As the landowner and or potentially Interested Affected Party (I&AP), we hereby inform you that Philco One Hundred and Seventy-Three (Pty) Ltd holds subsurface mineral rights under the EPL No. 9110. The Proponent wishes to conduct prospecting activities which entails the following:

a) Desktop studies which include the processing and interpretation of the existing geophysical data sets;

b) Regional field-based reconnaissance activities and if the results are positive, implement detailed site-specific field-based activities using techniques such as geological mapping, geophysical surveys, trenching, drilling, and sampling for laboratory testing. (Detailed explanation will be contained in the ESAR)

Should exploration yield successful results and the proponent confidently decides to proceed with mining a full environmental impact assessment and a detailed feasibility study will be carried out with appropriate site-specific specialist studies i.e., Hydrology, Biodiversity, Soil and more that are deemed necessary.

On behalf of our client, we hereby extend an invitation to you as an identified stakeholder and or I&AP for this project. You are hereby requested to register yourself as an affected party to receive the Background Information Document (BID) and the draft ESAR as well as the EMP in order to provide your input/comments/concerns regarding the proposed activities.

Registration can be done by requesting the BID dully motivated in writing with the following details: Names, Farm Name/Organization, Contact Details, and your Comments/Inputs to the following email addresses: info@enviro-aec.com

DEADLINE FOR REGISTARTION AND WRITTEN SUBMISSIONS: 28TH OF FEBRUARY 2023

Further take note that, the work that will be conducted on this EPL is only prospecting activities and it is not mining, and no minerals deposits have been discovered, in the same light there is no guarantee that the prospecting will result in any economic minerals discoveries.

Should there be a need to conduct fieldwork on your land, the Proponents or their representative will contact you to request for permission to access your property and any future access or related Agreements can be negotiated. Issues and conditions related to any agreements to be signed between the proponent and the affected party are beyond our scope of work and are not part of the ECC application process.

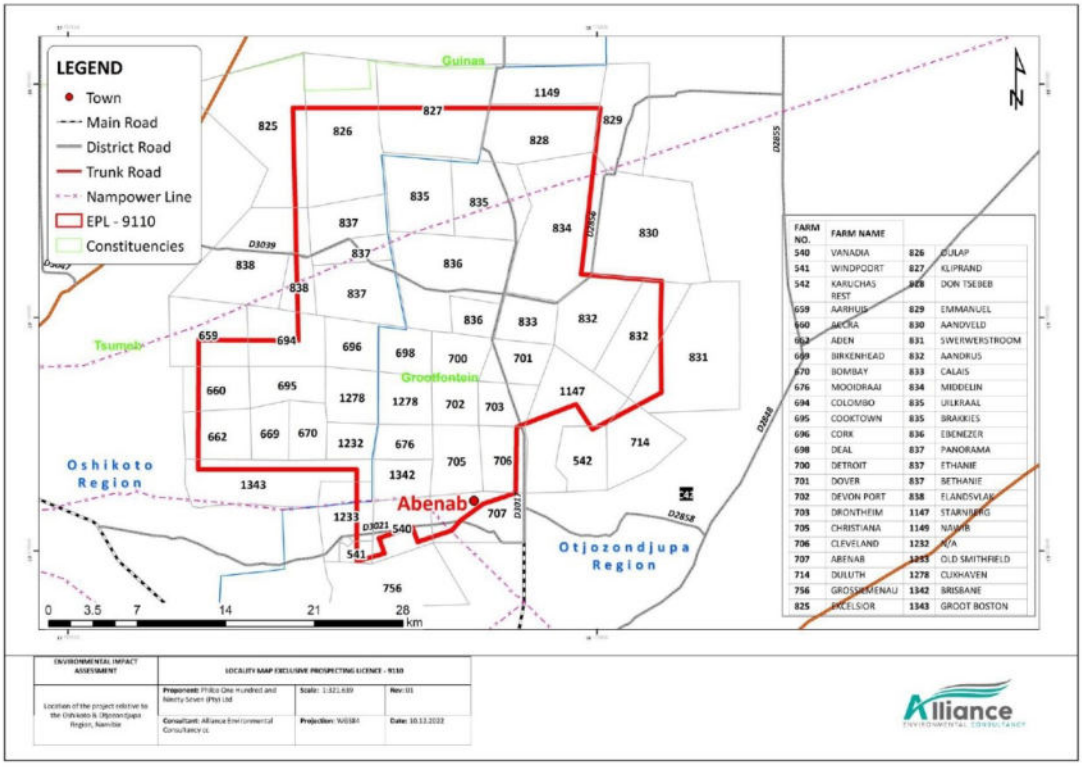
We aspire to build an open communication with you, and we value your input and participation.

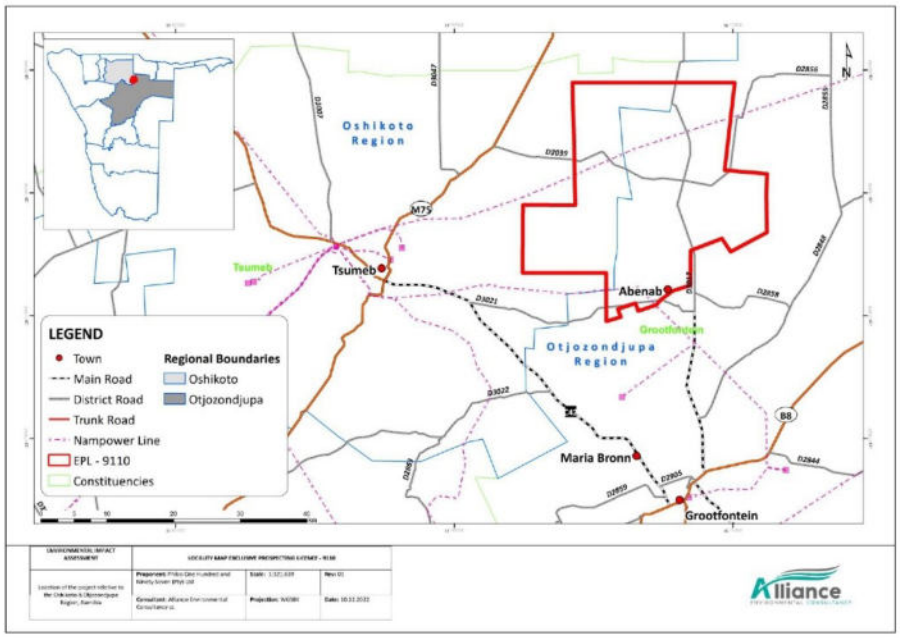
Should you require any further information, please do not hesitate to contact us.

Yours Sincerely,

Alliance Environmental Consultancy
P.O. Box 51006, Bachbrecht
Cell: +264 85 772 8929
Email: info@enviro-aec.com

Ms. Lovisa Amwele (Cand. Nat. Sci)
Principal Environmental Consultant
Alliance Environmental Consultancy CC


LEGEND
Town
Main Road
District Road
Trunk Road
Nampower Line
EPL - 9110
Constituencies
Guinas
Tsumeb
Grootfontein
Oshikoto Region
Otjozondjupa Region
Abenab
0 3.5 7 14 21 28 km
FARM NO. FARM NAME
540 VANADIA
541 WINDPOORT
542 KARUCHAS REST
659 AARHUIS
660 MOKA
661 ADEN
669 BIRKENHEAD
670 BOMBAY
676 MOOIDRAAI
694 COLOMBO
695 COOKTOWN
696 CORK
698 DEAL
700 DETROIT
701 DOVER
702 DEVON PORT
703 DRONTHEIM
705 CHRISTIANA
706 CLEVELAND
707 ABENAB
714 DULUTH
756 GROSSER MENAU
825 EXCELSIOR
826 DULAP
827 KLIPRAND
828 DON TSEBEB
829 EMMANUEL
830 AANDVELD
831 SWERWERSTROOM
832 AANDRUS
833 CALAIS
834 MIDDELIN
835 UILKRAAL
836 BRAKKIES
837 EBENEZER
838 PANORAMA
1147 STARNBERG
1149 NAMIB
1232 N/A
1233 OLD SMITHFIELD
1278 CLIXHAVEN
1342 BRISBANE
1343 GROOT BOSTON
Alliance


LEGEND
Town
Main Road
District Road
Trunk Road
Nampower Line
EPL - 9110
Constituencies
Regional Boundaries
Oshikoto
Otjozondjupa
Oshikoto Region
Otjozondjupa Region
Tsumeb
Abenab
Maria Bronn
Grootfontein
M75
B8
Alliance

Alliance Environmental Consultancy
P.O. Box 51006, Bachbrecht
Cell: +264 85 772 [illegible]
Email: info@enviro-aec.com

LIST OF REGISTERED ITEMS POSTED

NAM POST

by Alliance Environmental Consultancy, P.O.Box 51006 Bachbretcht

Sender's reference no.	Addressee's name and address	Registration no.
1	Vanadia 540/Emmanuel/Excel P.O.Box 13343 Windhoek	BA 001 828 045 NA
2	Stanberg 1147, Karuchas Res 542 P.O.BOX 26 Grootfontein	BA 001 828 059 NA
3	Aarhuis 659 P.O.BOX 23228 Windhoek	BA 001 828 062 NA
4	Farm Accra 660 P.O.Box 85 TSumeb	BA 001 828 076 NA
5	Birkenhead 669/Aden 662/Cocktown 695 P.O.Box 1591 Tsumeb	BA 001 828 080 NA
6	Bombay 670 P.O.BOX 11733 Windhoek	BA 001 828 093 NA
7	Calais 833/Dover 701 P.O.BOX 21730 Windhoek	BA 001 828 102 NA
8	Drontheim 703/Daven Port 702 P.O.Box 3 Otjiwarongo	BA 001 828 116 NA
9	Cleveland 706/Christiana 705 P.O.BOX 63 Grootfontein	BA 001 828 120 NA
10	Farm Abenab 707 P.O.BOX 1927 TSumeb	BA 001 828 133 NA
11	Duluth 714 P.O.Box 901 Windhoek	BA 001 828 147 NA
12	Grossilmenau 756 P.O.BOX 171 Grootfontein	BA 001 828 155 NA
13	Kliprand 827 P.O.BOX 98515 Windhoek	BA 001 828 164 NA

prime press 072001

Date-stamp

Number of Items 13 Received by

EROS 2 2023.01.23-A NAMIBIA 185

No compensation will be considered unless enquiry regarding this postal article is made within one year after the date posting.

Alliance Environmental Consultancy
P.O. Box 51006, Bachbrecht
Cell: +264 85 772 8929
Email: info@enviro-aec.com

LIST OF REGISTERED ITEMS POSTED

NAMPOST

by Alliance Environmental Consultancy, P.O.Box 51006 Bachbrecht

Sender's reference no.	Addressee's name and address	Registration no.
1	Farm Don Tsubeb 828 P.O.BOX 96226 Windhoek	BA 001 828 178 NA
2	Farm Aandveld 830 P.O.BOX 120 Tsumeb	BA 001 828 181 NA
3	Sewentoom 831 P.O.BOX 18016 Oshakati	BA 001 828 195 NA
4	Aandrys 832 P.O.BOX 312 Grootfontein	BA 001 828 204 NA
5	Middelin 834 P.O.BOX 3273 Rehoboth	BA 001 828 218 NA
6	Ebenezer 836 P.O Box 520 Oshakati	BA 001 828 221 NA
7	Elandsvlak 838 P.O.BOX 584 Tsumeb	BA 001 828 235 NA
8	Old Smithfield 1233 P.O.BOX 316 Tsumeb	BA 001 828 249 NA
9	Cuxhavel 1278 P.O.Box 27 Tsumeb	BA 001 828 252 NA
10		
11		
12		
13		

prime press 072001

Number of items 9 Received by

Date-stamp

EROS 2
2023.01.23
NAMIBIA PO 185

No compensation will be considered unless enquiry regarding this postal article is made within one year after the date posting.

Update of the Environmental Scoping and Impact Assessment (ESIA) for the proposed minerals prospecting activities within EPL9110/EPL9852 near Tsume...

IA info@enviro-aec.com

Reply | Reply All | Forward | ...

To 'glhenning@iway.na'; 'Cobus.nf@gmail.com'; 'louisfouriesosh@gmail.com'; 'info@abenablodge.com'; 'enkara44@gmail.com'

Cc 'lovisa@enviro-aec.com'

Wed 12/11/2024 12:45

You replied to this message on 1/13/2025 12:12.

Locality Map EPL9110.jpg 3 MB | 230508_EPL 9110_EIA Report_LK_CC_LNA_PerthA.pdf 11 MB | 230505_EPL9110_EMP Report_LNA_CC_KN_PerthA.pdf 2 MB

Dear Stakeholder,

I hope this email finds you well.

We are writing to inform you of an important update regarding the Environmental Scoping and Impact Assessment (ESIA) for the proposed minerals prospecting activities in the vicinity of Tsumeb, originally associated with EPL 9110 under the company Philco 173 (Pty) Ltd which was conducted in the year 2023 (Attached).

Due to outstanding company details, the application for EPL 9110 was rejected by the Ministry of Mines and Energy (MME), and as a result, the Environmental Clearance Certificate (ECC) process was put on hold and later dismissed. However, the applicant has since re-applied for a new Exclusive Prospecting License (EPL 9852) on the same grounds through a different entity, KDN Geo Consulting cc.

As part of this new application, the Environmental Scoping Report and Impact Assessment, previously prepared for Philco 173, will be updated to reflect KDN as the applicant and EPL 9852 as the new licence. Please take note of the below key points of this update:

1. The scoping report will be revised to reflect KDN and EPL 9852, which includes potential changes in the project scope or operational plans.
2. The environmental impacts and mitigation strategies will be reassessed were necessary to ensure compliance with all regulatory requirements.
3. **Public participation will be an integral part of this process, and any feedback you provided previously will be considered during the revised assessment. In addition, we would like to host a public information sharing meeting with the stakeholders in January 2025. Kindly let us know of your availability on the 17th or 18th of January 2025. *Your feedback is crucial for our planning*.**
4. We value your continued involvement and engagement in this process. If you have any questions, concerns, or would like further clarification on the updated application, please do not hesitate to reach out to us.

We will be providing you with the updated documents due course for your review and commentary.

Thank you for your attention to this matter, we aspire to build an open communication with you, and we value your input and participation.

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

Best regards,

Alliance Environmental Consultancy
Email: info@enviro-aec.com
Cell: +264 81 435 1689

FW: Update of the Environmental Scoping and Impact Assessment (ESIA) for the proposed minerals prospecting activities within EPL9110/EPL9852 near Ts...

Reply | Reply All | Forward | ...

IA info@enviro-aec.com
To 'vonmolen@iway.na'; 'cuxhaven'; 'krugergroups@gmail.com'; 'pieter@akwaprojects.com'; 'Johannes Blaauw'
Cc 'lovisa@enviro-aec.com'
Wed 12/11/2024 12:53

You replied to this message on 1/13/2025 12:12.

Locality Map EPL9110.jpg 3 MB | 230508_EPL 9110_EIA Report_LK_CC_LNA_PerthA.pdf 11 MB | 230505_EPL9110_EMP Report_LNA_CC_KN_PerthA.pdf 2 MB

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

Best regards,

Alliance Environmental Consultancy
Email: info@enviro-aec.com
Cell: +264 81 435 1689

RE: Update of the Environmental Scoping and Impact Assessment (ESIA) for the proposed minerals prospecting activities within EPL9110/EPL9852 near Ts...

Reply | Reply All | Forward | ...

IA info@enviro-aec.com

To 'glhenning@iway.na'; 'Cobus.nf@gmail.com'; 'louisfouriesosh@gmail.com'; 'info@abenablodge.com'; 'enkara44@gmail.com'

Cc 'lovisa@enviro-aec.com'

Mon 1/13/2025 12:12

Dear Stakeholder,

Compliments of the New season,

This is a follow up email on the communication below. Kindly provide us with feedback as soon as you can.

Regards

Alliance Environmental Consultancy
Email: info@enviro-aec.com
Cell: +264 81 435 1689

Alliance ENVIRONMENTAL CONSULTANCY

EMAIL TO THE FARMERS ASSOCIATON

STAKEHOLDER CONSULTATION - Environmental Impact Assessment (EIA) process for the proposed exploration activities within EPL 9110, Oshikoto a...

IA info@enviro-aec.com
To 'stoman@afol.com.na'

Reply | Reply All | Forward | ...

Wed 1/18/2023 22:03

221212_EPL9110_BID_LNA.pdf 1 MB
230117_EPL9110_StakeholderLetter_MAIN_CAC .pdf 721 KB
Cadastre.JPG 134 KB
Locality Map EPL9110.jpg 3 MB
Locality Map with farms EPL9110.jpg 4 MB
Farmers Details EPL 9110.docx 20 KB

Dear Christine,

Compliments of the season!

We are in the process of applying for an Environmental Clearance Certificate for proposed minerals exploration activities on EPL 9110 on behalf of our client. As part of the public participation process, we are required to communicate with affected parties through different means to inform them about the project and how they can be involved. The EPL covers portions of a number of farmlands near Tsumeb and Grootfontein.

The details of the farms retrieved from the Ministry of Lands is often outdated and the newspaper adverts don't always reach the rightful audience, therefore we explore other options in attempt to invite potential Interested and Affected Parties (I&APs) for the project.

We hereby request your assistance with the contact details of some farm owners, if available (as per the attached sheet and maps) for the purpose of stakeholder consultation. Alternatively, we will appreciate if you could forward this email and documents to any person who can potentially assist in that regard.

Attached to this email: Formal request letter, farm numbers and names, locality maps, and Background information Document for your attention.

We hope to hear from you soon.

Many Thanks and,
Kind Regards

Lovisa (Cand. Sci. Nat)
Principal Environmental Assessment Practitioner
Alliance Environmental Consultancy
Email: info@enviro-aec.com OR lovisa@enviro-aec.com
Cell: +264 85 772 8929 OR +264 81 435 1689

Alliance ENVIRONMENTAL CONSULTANCY

REGISTRATION EMAILS FROM TO THE PUBLIC

RE: Update of the Environmental Scoping and Impact Assessment (ESIA) for the proposed minerals prospecting activities within EPL9110/EPL9852 near Ts...

Reply | Reply All | Forward | ...

IA info@enviro-aec.com
To 'Abenab Lodge COM'

Mon 1/13/2025 12:41

Good day,

Will you kindly provide more content to your comment. Please refer to the maps contained in the report to outline for us which area makes up farm Abenab. We will greatly appreciate if you can share the details of the other stakeholders that we should make contact with.

Regards

Alliance Environmental Consultancy
Email: info@enviro-aec.com
Cell: +264 81 435 1689

Alliance ENVIRONMENTAL CONSULTANCY

From: Abenab Lodge COM <info@abenablodge.com>
Sent: Monday, January 13, 2025 12:21
To: info@enviro-aec.com; glhenning@iway.na; Cobus.nf@gmail.com; louisfouriesosh@gmail.com; enkara44@gmail.com
Cc: lovisa@enviro-aec.com
Subject: Re: Update of the Environmental Scoping and Impact Assessment (ESIA) for the proposed minerals prospecting activities within EPL9110/EPL9852 near Tsumeb in the Oshikoto and Otjozondjupa regions

Hi

Abenab is such a big area and doesn't apply to Abenab Farm 707 alone.
For Abenab Farm 707 to comment, it will be prematured and excluding other stakeholder. Hence an inclusive approach will be preferable since mining will have side effects to all.

Regards
Abenab Farm

RE: Update of the Environmental Scoping and Impact Assessment (ESIA) for the proposed minerals prospecting activities within EPL9110/EPL9852 near Ts...

IA info@enviro-aec.com
To 'Cobus Coetzee'

Reply | Reply All | Forward | ...

Thu 1/16/2025 09:52

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Good day Cobus,

Thank you for your email. Following our telephone conversation,

Kindly see if Saturday the 8th February 2025 is suitable.
If possible, would you kindly share with me the details of the other stakeholders to form a part of our list (Name, Farm Name and number, telephone/cell phone number and email address).

In terms of the venue, kindly propose a venue that is accessibly near the Abenab area.

Regards

Alliance Environmental Consultancy
Email: info@enviro-aec.com
Cell: +264 81 435 1689

Alliance ENVIRONMENTAL CONSULTANCY

Re: Update of the Environmental Scoping and Impact Assessment (ESIA) for the proposed minerals prospecting activities within EPL9110/EPL9852 near Ts...

Reply | Reply All | Forward | ...

IA Info AEC <info@enviro-aec.com>
To Cobus Coetzee
Fri 1/17/2025 10:25

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Good day Cobus,

We are flexible and available on the 18th February. Is there a venue close to the area where we can host the meeting?

Thank you for the list. We will add them to the stakeholder list.

Regards

From: Cobus Coetzee <cobus.nf@gmail.com>
Sent: Thursday, January 16, 2025 19:47
To: info@enviro-aec.com <info@enviro-aec.com>
Subject: Re: Update of the Environmental Scoping and Impact Assessment (ESIA) for the proposed minerals prospecting activities within EPL9110/EPL9852 near Tsumeb in the Oshikoto and Otjozondjupa regions

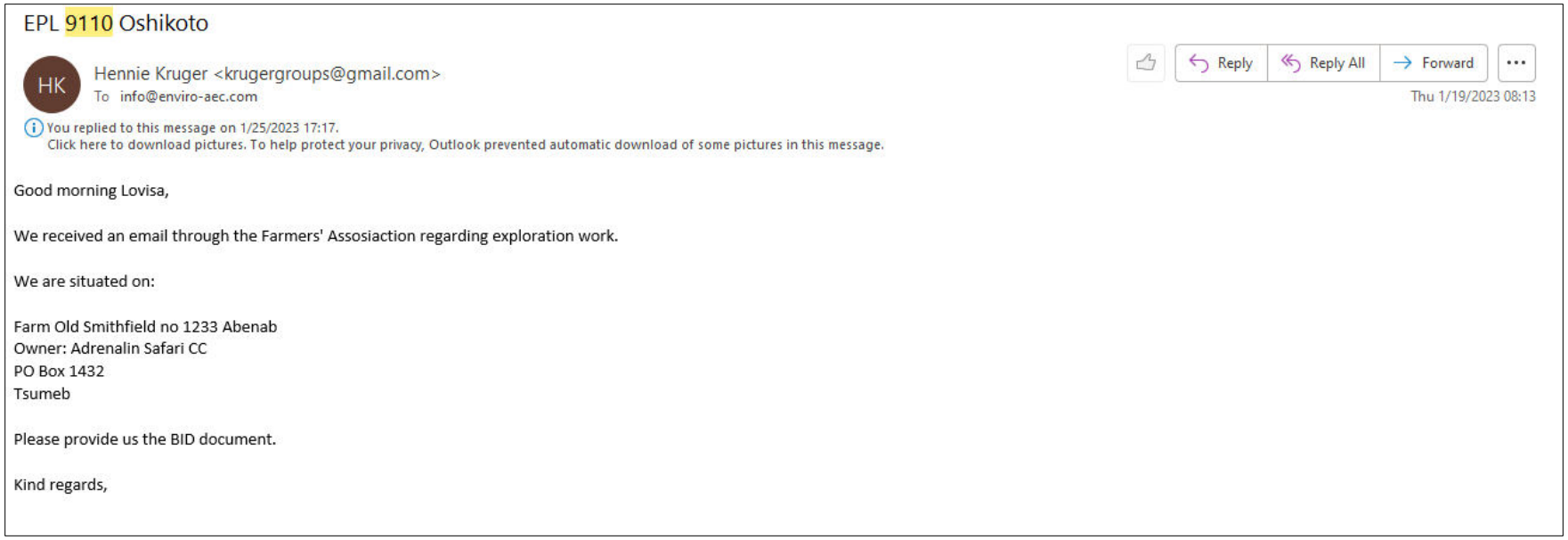
Good evening

Weekends are a bit difficult due to school activities. Will it be possible passible for 18 February?

Farm Bombay Cobus Coetzee 0814355616
Farm Brisbane Cobus Coetzee 0814355616
Farm Bafelo Sakkie van Lill 0812448280
Farm Cuxhaven Lou Potgieter 0811486910
Farm Cadix Leon von Mollendorf 0817804156
Farm Grootfontein Boston David Bisschoff 0811228691
Farm Old Smithfield Hennie Kruger 0812296143
Farm Starnberg Friddel Blume 0811490342

I still wait for reply from other farmers will also send you their details when they confirm.

Kind regards



EPL 9110 Oshikoto

HK Hennie Kruger <krugergroups@gmail.com>
To info@enviro-aec.com

Reply | Reply All | Forward | ...

Thu 1/19/2023 08:13

You replied to this message on 1/25/2023 17:17.
Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Good morning Lovisa,

We received an email through the Farmers' Assosiaction regarding exploration work.

We are situated on:

Farm Old Smithfield no 1233 Abenab
Owner: Adrenalin Safari CC
PO Box 1432
Tsumeb

Please provide us the BID document.

Kind regards,

RE: Stakeholder notification

IA info@enviro-aec.com
To 'cuxhaven'

Reply | Reply All | Forward | ...
Tue 2/28/2023 11:37

221212_EPL9110_BID_LNA.pdf
1 MB

230117_EPL9110_StakeholderLetter_MAIN_CAC .pdf
721 KB

Dear Potgieter,

Thank you for your interest in our project.

You have been registered as an Interested and Affected Party (I&AP) for the proposed minerals prospecting activities within EPL 9110, within the Tsumeb and Grootfontein Constituencies, Otjozondjupa and Oshikoto Regions.

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

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

Thank you and,

Kind Regards
Lovisa

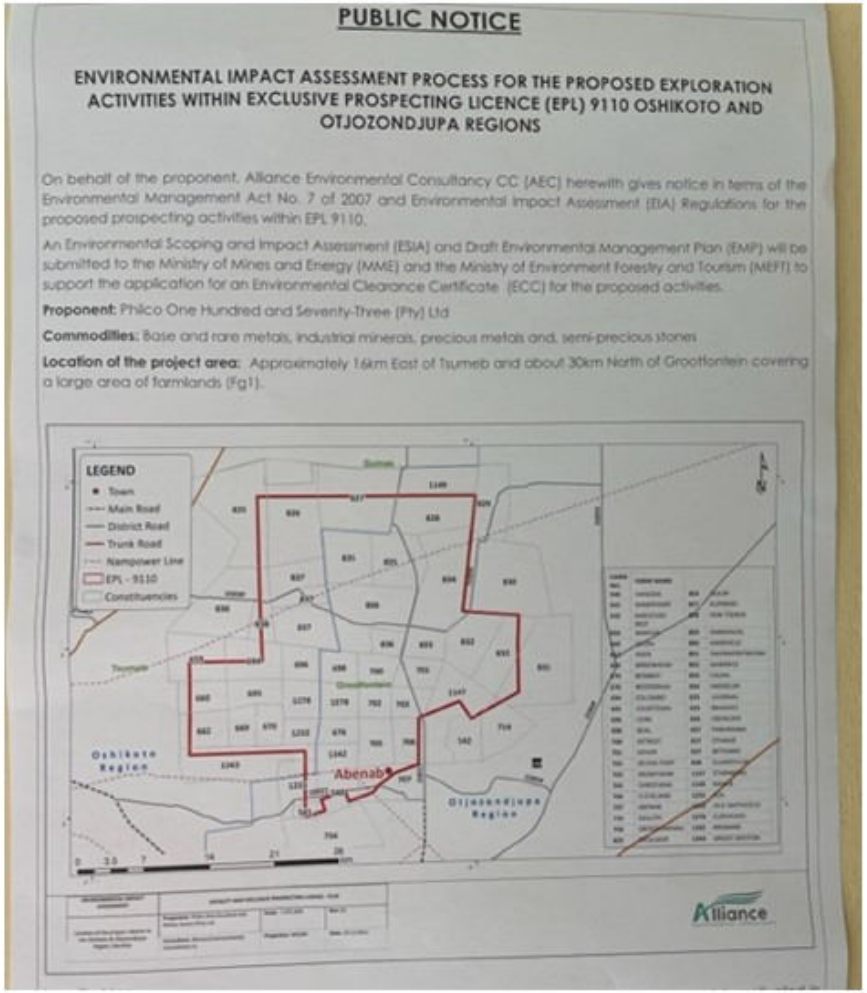
Alliance Environmental Consultancy
Email: info@enviro-aec.com
Cell: +264 81 435 1689 **OR** +264 85 772 8929

Alliance ENVIRONMENTAL CONSULTANCY

From: Pieter van Staden <pieter@akwaprojects.com>
Sent: Saturday, January 21, 2023 10:04
To: info@enviro-aec.com
Subject: EIA Philco one hundred and ninety-seven pty ltd

Hello

I would like to register as an I&Ap. Please send us the Bid document.



PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED EXPLORATION ACTIVITIES WITHIN EXCLUSIVE PROSPECTING LICENCE (EPL) 9110 OSHIKOTO AND OTJOZONDJUPA REGIONS

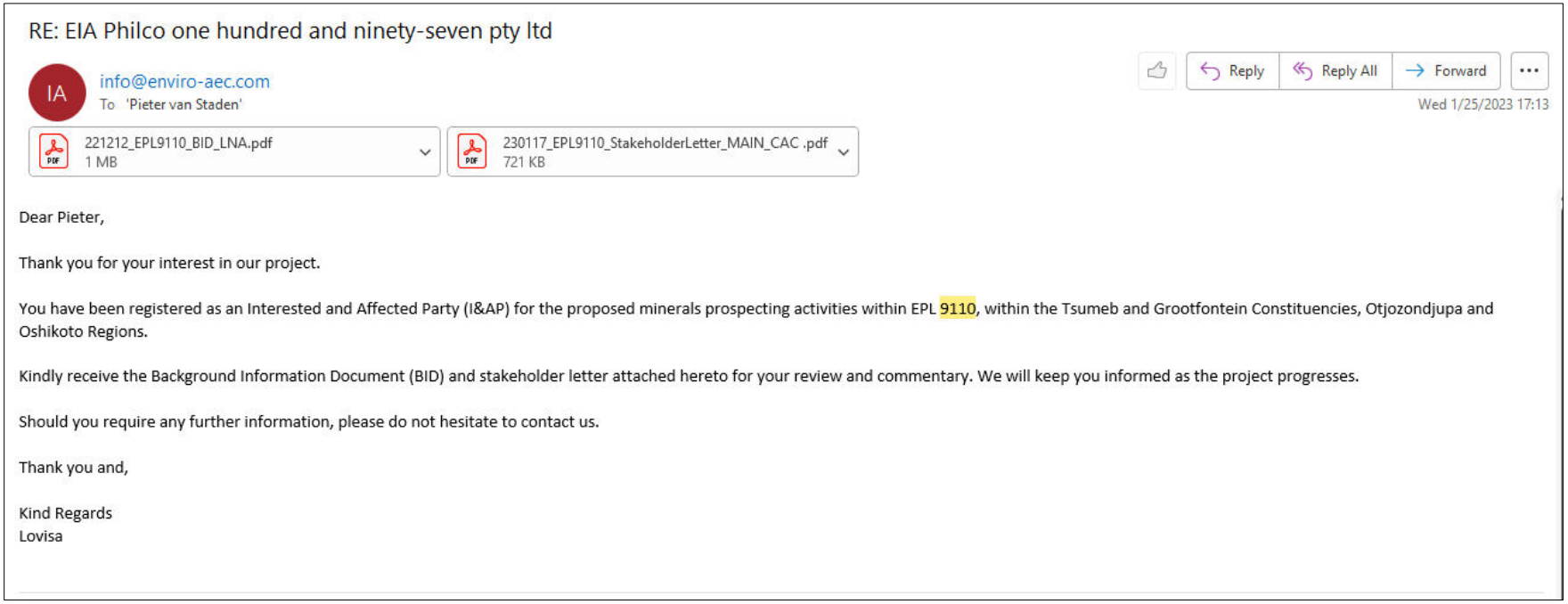
On behalf of the proponent, Alliance Environmental Consultancy CC (AEC) herewith gives notice in terms of the Environmental Management Act No. 7 of 2007 and Environmental Impact Assessment (EIA) Regulations for the proposed prospecting activities within EPL 9110.

An Environmental Scoping and Impact Assessment (ESIA) and Draft Environmental Management Plan (EMP) will be submitted to the Ministry of Mines and Energy (MME) and the Ministry of Environment Forestry and Tourism (MEFT) to support the application for an Environmental Clearance Certificate (ECC) for the proposed activities.

Proponent: Philco One Hundred and Seventy-Three (Pty) Ltd

Commodities: Base and rare metals, industrial minerals, precious metals and, semi-precious stones

Location of the project area: Approximately 16km East of Tsumeb and about 30km North of Grootfontein covering a large area of farmlands (Fig1).



RE: EIA Philco one hundred and ninety-seven pty ltd

IA info@enviro-aec.com
To 'Pieter van Staden'

Reply | Reply All | Forward

Wed 1/25/2023 17:13

221212_EPL9110_BID_LNA.pdf
1 MB

230117_EPL9110_StakeholderLetter_MAIN_CAC .pdf
721 KB

Dear Pieter,

Thank you for your interest in our project.

You have been registered as an Interested and Affected Party (I&AP) for the proposed minerals prospecting activities within EPL 9110, within the Tsumeb and Grootfontein Constituencies, Otjozondjupa and Oshikoto Regions.

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

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

Thank you and,

Kind Regards
Lovisa

EIA for public review - Minerals prospecting activities within EPL9110, Oshikoto and Otjozondjupa Regions

LA lovisa@enviro-aec.com

To 'info@enviro-aec.com'

Bcc 'glhenning@iway.na'; 'Cobus.nf@gmail.com'; 'louisfouriesosh@gmail.com'; 'info@abenablodge.com'; 'enkara44@gmail.com'; 'vonmolen@iway.na'; 'pieter@akwaprojects.com'; 'Hennie Kruger'

Reply | Reply All | Forward

Fri 3/24/2023 14:11

230324__EPL 9110_Draft EIA Report_LK_CC_LNA.pdf 10 MB

230321_EPL9110_Draft EMP Report_LNA.pdf 2 MB

Dear Stakeholder,

This email serves to notify you that the Draft Environmental & Scoping Impact Assessment (ESIA) report and the Draft Environmental Management Plan (EMP) for the proposed minerals prospecting activities within Exclusive Prospecting Licence (EPL 9110) is ready for your review and commentary.

Kindly be informed that the review period will last **from the 24th of March 2023 to the 07th of April 2023**. You will be notified once the documents are submitted to the authorities for decision making.

Further take note that the Ministry of Environment Forestry and Tourism (MEFT) provides a further review period of 14 days after submission via their online portal at http://eia.met.gov.na/.

We aspire to build an open commutation with you and should you require further information please do not hesitate to contact us.

Thank you and,
Kind Regards

Lovisa (Cand. Sci. Nat)
Principal Environmental Assessment Practitioner
Alliance Environmental Consultancy
Email: lovisa@enviro-aec.com OR info@enviro-aec.com
Cell: +264 81 435 1689 **OR** +264 85 772 8929

Alliance ENVIRONMENTAL CONSULTANCY

Farm Bombay 670 Tsumeb

SB

Sunette Blaauw <welverdiend@iway.na>
To lovisa@enviro-aec.com
Cc cobus.nf@gmail.com; gaylene.nf@gmail.com; 'Sunette Blaauw'

Reply | Reply All | Forward | ...

Wed 4/5/2023 12:29

You replied to this message on 4/19/2023 10:58.

Dear Lovisa

Thank you for the documentation received. Kindly note the following:

1. We are in the middle of our planting season (potatoes) and the time allocated to review the scientific document is not enough. We have noted some errors. Therefore, we will have to verify the data and consider applicability of information presented, sources etc. An extension on the deadline for comments is therefore requested.
2. Please provide the MEFT Application Number for this project. We would also like to view the screening notice which was sent by MEFT.
3. Kindly note that no persons are allowed to access the property without an agreed access agreement.
4. Furthermore, take note of the legal provisions pertaining to prospecting, orchards and plantations.

Kind regards
Cobus Coetzee

Sunette Blaauw
Lanzo Sales and Marketing

Lanzo

PO Box 2120
Tsumeb
Cell: +264 81 293 5120

Old Smithfield - EPL 9110

HK Hennie Kruger <krugergroups@gmail.com>
To lovisa@enviro-aec.com

Reply | Reply All | Forward | ...
Wed 4/5/2023 22:29

You replied to this message on 4/19/2023 10:59.
If there are problems with how this message is displayed, click here to view it in a web browser.
Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Dear Lovisa,

Thank you for the documentation received. Kindly note the following:

1. We are in the middle of our planting season (carrots and onions) and the time allocated to review the scientific document is not enough. We have noted some errors. Therefore, we will have to verify the data and consider applicability of information presented, sources etc. An extension on the deadline for comments is therefore requested.
2. Please provide the MEFT Application Number for this project. We would also like to view the screening notice which was sent by MEFT.
3. Kindly note that no persons are allowed to access the property without an agreed access agreement.
4. Furthermore, take note of the legal provisions pertaining to prospecting, orchards and plantations.

Kind regards

Hennie Kruger
081 229 6143

RE: Old Smithfield - EPL 9110

LA lovisa@enviro-aec.com
To 'Hennie Kruger'

Reply | Reply All | Forward | ...
Wed 4/19/2023 11:00

You replied to this message on 4/19/2023 11:05.
Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Dear Hennie,

Thank you for your email, apologies for the late response.
Kindly see our response in red below:

1. We are in the middle of our planting season (potatoes) and the time allocated to review the scientific document is not enough. We have noted some errors. Therefore, we will have to verify the data and consider applicability of information presented, sources etc. An extension on the deadline for comments is therefore requested.
   Your input and corrections will be gladly appreciated, we hereby afford your an extension to review the documents until Friday the **28th of April 2023**. Further take note that the Ministry of Environment Forestry and Tourism (MEFT) provides a further 14days period for public review before commencement of their internal review. The link will be shared with you once we submit and is available. Alternatively, should the comments be recieved after the 28th April and before the MEFT 14days period lapses, we can submit them as an adendum to our application.

2. Please provide the MEFT Application Number for this project. We would also like to view the screening notice which was sent by MEFT.
   Application number: 221213000673
   Screening notice attached.

3. Kindly note that no persons are allowed to access the property without an agreed access agreement.
   Thank you, we are aware of land tresspassing and any issues regarding access agreements as such will be done by the proponent (as advised by AEC) and the land owners, hence it is beyond our scope of work and not part of the ECC application process.

4. Furthermore, take note of the legal provisions pertaining to prospecting, orchards and plantations.
   Noted with thanks.

We look forward to your inputss regarding this project, we aspire to build an open communication with you, therefore, should oyu require an further information please do not hesitate to contact us.

Many thanks
Lovisa

Draft Environmental Scoping and impact Assessment: Will we be provided with the final VS?

Yes, please see attached.

Pg 11: Draft ESIA Report: Philco One Hundred and Seventy-Three (Pty) Ltd: Who has the shareholding of this company?

Kindly note that the applications for Environmental Clearance Certificates under the Environmental Management Act 07 of 2007 and the Regulations 2012 does not require public disclosures of the Proponent's trading resources related to the authorization falling within the roles and responsibilities of the Competent Authority and in this case the MME. Issues related to company credibility as such, and the sharing of company registration documents are beyond our scope of work and are not part of the ECC application process.

"Not a site-specific baseline study": How can an assessment be done like this? There are very different climate conditions from farm to farm. A lot will be missed.

Considering the magnitude of the proposed activities and the existence of similar projects in the vicinity, these can be used to sufficiently address the potential impacts that may emanate from the proposed project. . Reviewed literature, and professional experience from similar studies in the Regions and elsewhere were also considered when addressing these effects. This is discussed under the impact assessment section of the SR and mitigation measures are provided accordingly. Should a variation be encountered the EMP will be updated and/or specialist studies will be conducted if warranted.

Pg 24: Project Plan and activities: Once granted by MME: So they will grant it? Regardless of the EIA? Or not?

An ECC is part of the conditions/requirement for granting the physical licence by MME

Initiation/Pre-Operational Phase: Accommodation: For how many people?

Approximately 6 to 15 personnel (depending on the labour needs)

MAWLR: Was this done? Please provide approval from MAWLR?

For water: this will only be considered should the need for abstraction permits or other water related permits be required once the project is operational. The Directorate of Land Reforms was visited to acquire farmers' details and farm boundaries at the bigging of the year 2023 pls refer to Figure 3 and Appendix D.

Fuel Permit: Was this done? Please provide approval?

This will only be done once the storage quantities are confirmed and only if they exceed the thresholds as per the MME guidelines, in this case 600L. above-ground storage tank. At the moment the envisioned storage capacity is 200 – 400L mainly for the diesel-powered generator.

Basic infrastructure: What does this entail?

Temporary tents and shade structures and "maybe" containers.

Access: Minimal: If a drill rig needs access, how wide is the path? Will it be minimal?

A single carriage track/road is sufficient for drill rig access.

Pg 25: Waste Management: Have there been any regard to the relevant guidelines?

Water use: How much is not much? Please provide an estimate?

Approximately 2000L – 2500L or less a month depending on the number of personnel and the type of drilling.

Community boreholes: Where are these in relation to the project?

To be determined and this will only be an option with consent from the relevant landowners.

Power Supply: Diesel: How much diesel capacity? How much on site?

At the moment the envisioned storage capacity is 200 – 400L mainly for the diesel-powered generator.

A Small field: How small?

Equivalent to household use panel.

Onsite fuel storage: See questions above about fuel storage. Bunded fuel tank system: What will this look like? Need a drawing as per MME permit requirement.

Image below for illustrative purposes.

Pg 26: The fuel facility: need a permit?

If above 600L a consumer installation certificate is required.

Excavators and front-end loaders: How many? This is not minimal distraction.

Only one (1) and only if overburden topsoil removal is required which is unlikely.

Water tankers: What will this look like? How big are these?

Below images for illustrative purposes. Approximately 1000L capacity

Accommodation Place: How big will this "accomodation place" be?

Area sufficient to accommodate approx. 5 – 10 personnel with temporary sleeping tents and shade structures.

Geophysical survey: Radar, magnetic and electromagnetic: Explain how this will be achieved please? Provide some pictures. How large are fight paths surely, they have to cover height boring properties?

Please see images below of the two types of geophysical methods with ground-based magnetometer (left) and airborne magnetometer (right).

Pg 27: Helicopter or aircraft: How are wildlife and game camps considered with such low flying aircraft? Please clarify how wildlife is affected?

The low flying aircraft will not impact wildlife and game camps.

How much water is used per 10m?

This depends on the hardness of the formation being drilled and only if diamond drilling is employed.

How deep do you want to go?

Yet to be determined through geological interpretation.

What happens to the wastewater?

Please refer to section 3.1.2 of the scoping report.

What happens to machinery oils?

Possible oils from the servicing of the vehicles and machines will be collected in drums or as appropriate and is taken together with all other industrial waste that is generated on site to the nearest hazardous waste site (possible Tsumeb).

How many people per team?

Exploration team can range from 5 – 10 personnel, drilling team may range from 5 – 8 members.

How do you ensure that aquifers are not contaminated?

Please refer to Table 11 in the scoping report

What happens to the core?

The proponent will establish a temporary core shed storage area either at the accommodation camp in containers or elsewhere.

Pg 29: Trenches: How wide are these 5m trenches?

5m. Very unlikely

General Comments on Project Description: Need more details on what actually will happen on ground.

How many people?

Answers provided above.

What do camps look like?

A fenced off area with temporary sleeping tents (5 – 8). Kitchen area open space or container, ablution facility (portable toilets as envisioned) and vehicle/core shade area if required.

How much fuel will be stored? What does flying look like? How will this flying impact wildlife, cattle and livestock? Please explain what happens to waste, typically?

Answer provided above.

How long does it take , approximately per each phase?

Cannot be determined at this stage. It depends on the observation at the site and from the sampling/drilling. The physical licence is valid for a period of 3 years with possible renewal.

Pg 36: Key regulators / Competent Authorities

Advise on groundwater protection and permitting.

Answers provided above.

No mentioning of regional plans. No mentioning of NDP's

Please elaborate.

Pg 37: Permits

No mention of water .....areas drilling (not abstraction) also requires authorization from MAWLR

Refer to Table 6 "Notice of intention to drill – MME". For prospecting these are administered through MME, we are not familiar with authorization from MAWLR related to prospecting apart from water abstraction.

No mention of Agriculture. Some of these farms have been in operation since before 1975: Proof even on the topo maps of the area.

Please elaborate. The farming practices and minerals prospecting can co-exist and any impacts that may arise from the project are addressed in Chapter 9 and the EMP.

Water policy states that water is first for people then food production and then mining.

Noted. Please note that this is a prospecting project and not mining.

Agriculture has been a proven viable practice for 50 years in the area. Providing continued employment and food production on a sustainable basis, this should be stated in your report as well.

Noted and considered. Section 6.7.4.

Pg 38: Baseline environment / study area

Focus on the excellent relationship between the mentioned parties respecting the views, reality and future.

Noted

Pg 40: Sunshine and wind.

Reference to Grootfontein town regarding sun hours.....why is the rest of the climate information for Tsumeb? It should be the same reference.

The sun hours data is reference to Grootfontein town which has the closest recording station to the EPL area that was found. Kindly share Tsumeb data if available.

Pg 41: Figure 8&9

Not defined, we use km/h and not mph.

Noted with thanks.

The heading states for Windhoek 2021 to January 2023. Not the same location / area.

Noted with thanks.

Pg 42: Flora Agriculture is NOT a minor sector in the economy. Please contact the Namibian Agronomic board for a full review.

Noted with thanks.

Invader bush has been handled adequately for the last 10-12 years through bush thinning for enlargement of cultivation in this area.

Noted with thanks.

Table 7 - No reference - where was this info taken from.

Noted with thanks. Reference Atlas of Namibia.

Pg 62: Impact Assessment

Table 8 - exploration activities require removal of some plants to a small extent.....please define size or area.

Typically to support the 15X15m drill site or to widen tracks if required. Note that this will be avoided at all costs.

Disturbing the hunting activities.....of whom?

In cases where hunting is practiced in the area.

The presence of people in the area can influence illegal hunting or poaching of wildlife or livestock.....what is meant by this? Will the influence be negative or positive?

If the team is not made aware of the EMP provisions and have not gained behavioral training which prohibits the hunting or poaching of wildlife or livestock, although unlikely this can be a negative impact.

Habitats are not confined to the EPL boundaries

That is true.

Pg 65: Noise

No mentioning of airplanes and helicopter movements causing noise.

Not an envisioned impact.

Noise caused by project activities.....please add flight movement during project. Elaborate on handling noise levels due to our wildlife that has limited areas to flee because of mountains / corridors / fencing.

Does not qualify as an envisioned impact. Please refer to Table 9

Under your Mitigation measures you mentioned the WHO guideline on noise levels, where do you mention it in your legal section.

Noted and added.

Pg 67: Dust. No mentioning of airplanes or helicopters

Please elaborate. The aircraft will not fly at low altitudes such that it triggers dusty conditions.

Dust control is of utmost importance because excessive dust on crops and orchards will influence plant health, and over-all production.

Excessive dust can be caused by exploration activities which include dust from flight, drilling and transporting activities during the project. Plan needed to prevent / handling dust during the project on roads and dust sensitive areas

Noted, and will be considered.

Pg 77: Erosion control

Drainage lines and riveriens are part of the natural landscape and maintain biodiversity. No mention of limiting erosion in these areas.

Please refer to Chapter 10

Preplanning and mapping of contours by a professional of the area to ensure that drainage lines and riverine are protected and maintained before land moving takes place.

Noted and will be considered.

Constructing roads, trenches and other land moving activities need a proposed plan before activity starts to limit the erosion during the rainy season.

Noted and will be considered.

Major impacts lacking

Ground water: How will it be affected by so many boreholes? Will the aquavere be contaminated? Was Namwater contacted? Fuel storage and hazardous material can cause contamination of water.

No water contamination is envisioned from the drilling of holes. All addressed above. Namwater has not been contacted, that will be considered should the need arise.

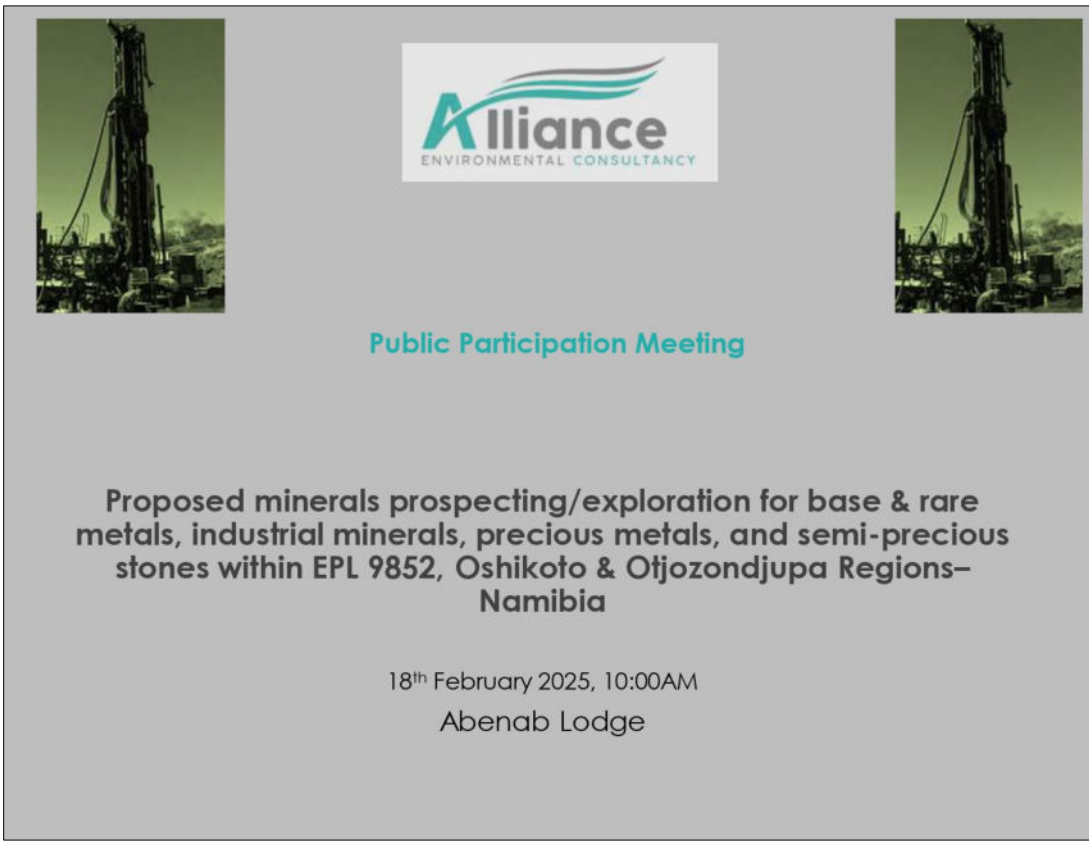
Fire hazard: Drill and prospecting operations have in the past caused fires which are devastating. This is not addressed.

Section 4.12. in the EMP

Social impact: People in prospecting camps can have a negative social impact on the farming workforce and community.

The team will undergo training to be made aware of the Dos and Don'ts at work and in the areas around the EPL. A daily safety talks will be held during the project's operations.

PRESENTATION - PUBLIC ENGAGEMENT & INFORMATION SHARING MEETING (18.02.25)



OUTLINE

1. INTRODUCTION
2. PUBLIC PARTICIPATION PROCESS
3. PROPOSED PLANNED ACTIVITIES
4. METHODOLOGY
5. SUPPORT INFRASTRUCTURE, EQUIPMENT & SERVICES
6. NEED AND DESIRABILITY OF THE PROJECT
7. ENVIRONMENTAL IMPACTS
8. WAY FORWARD
9. DISCUSSION

INTRODUCTION

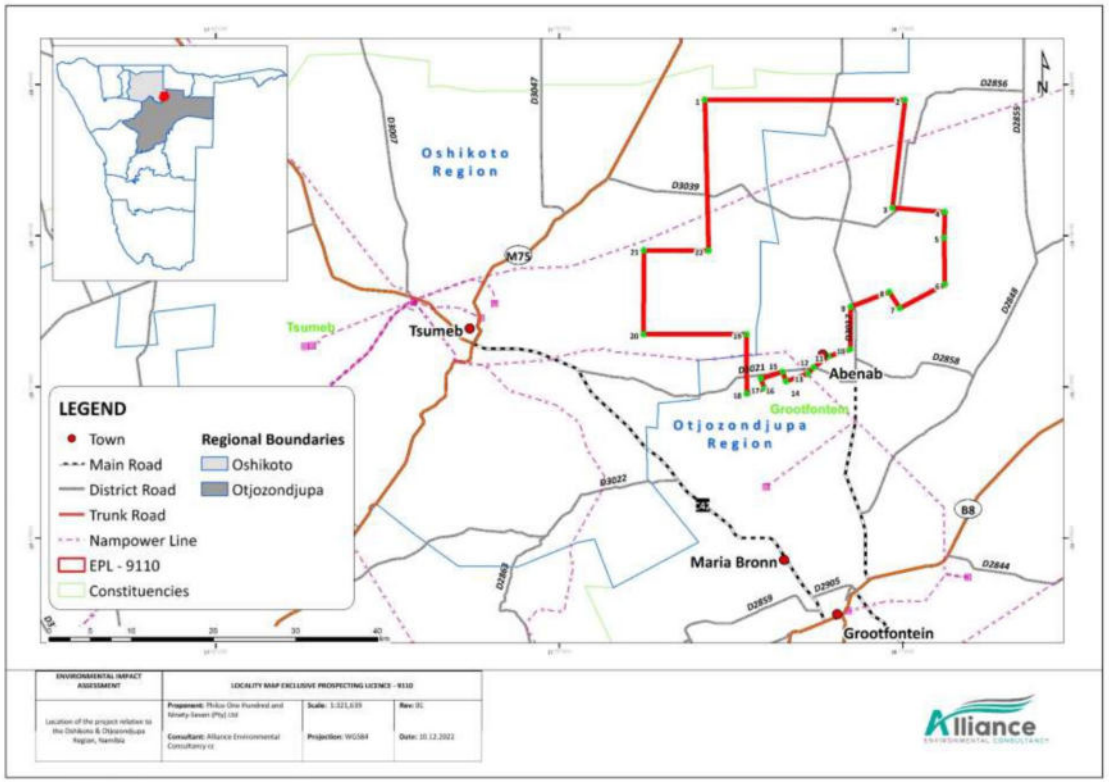
- Alliance Environmental Consultancy CC (AEC), "the consultant" has been appointed By KDN Geo Consulting/Philco 173, "the proponent" to assist with the application process for an Environmental Clearance Certificate (ECC).
- Minerals prospecting and exploration activities for:

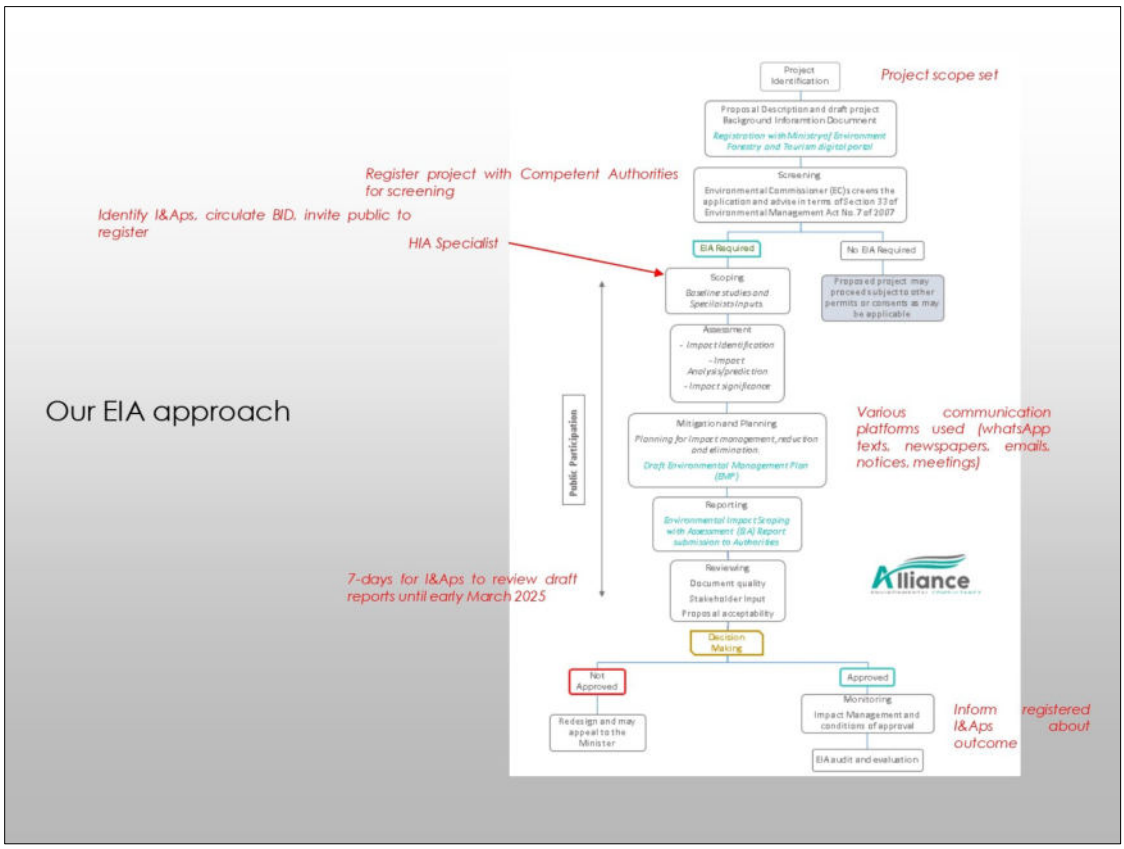
MINERALS GROUP	EXAMPLES
Base & rare metals	Copper, Lead, Zinc, and Nickel
Industrial minerals	Gypsum, Barite
Precious metals	Gold, Silver
Semi-precious stones	Tourmaline, Turquoise

INTRODUCTION CONT…

Purpose of an EIA

- Introduce the proposed project and related activities to potential Interested and Affected Parties (I&APs);
- Establish baseline for the receiving environment (flora, fauna, topography, climatic conditions, water resources, land-use, social, economic, livelihood, heritage)
- Systematically assess how proposed activities will interact with the environmental and identify potential impacts (triggering activities, type of impacts, consequences, likelihood, risk significance) – both negative & positive
- **Thereafter, identify**, **assess** and **formulate** appropriate management actions required to **avoid**, **minimize** or **mitigate** the negative impacts; or to **enhance the benefits** of the project.
- Submit reports to support application for Environmental Clearance to the relevant GRN authorities





PROPOSED PLANNED ACTIVITIES

The envisaged project development process outline:

- ✓ Planning and permitting.
- ✓ Site preparation for the exploration team if required (temporary camps).
- ✓ Supporting infrastructure, access, energy, and water supply.
- ✓ Preparation of drill sites and drilling operations.
- ✓ Decommissioning, final rehabilitation.

EXPLORATION METHODOLOGY

- **Step 1:** Desktop review of existing data as well as past research.
- **Step 2:** Regional reconnaissance assessment. Regional mapping and sampling
- **Step 3:** Geological mapping, sampling, geo-physical surveying, and potentially widely spaced trenching (UNLIKELY) and drilling to verify the feasibility of any identified local target based on the regional data acquired in step 2 above.
- **Step 4:** Exploration resource evaluation and defining the ore body through localized site-specific detailed geology mapping, trenching (UNLIKELY), bulk sample, surveying, and detailed drilling are carried out.
- **Step 5:** Pre-feasibility level. Activities include detailed site-specific drilling, bulk sampling, and laboratory testing/test mining.

Proposed exploration methods, equipment, and technologies

Geological mapping and rock grab sampling

- Geologist and geo-technicians/assistants with rucksacks and geological hammers, using existing tracks and predominantly on foot to map and sample outcrops of interest

Soil Sampling

- Geologist and geo-technicians/assistants with rucksacks, geological hammers and soil sampling kits, using existing tracks and predominantly on foot, sampling along predetermined grids.

Geophysics

- Ground geophysics methods such as Gravity, Induced Polarization and Electro-Magnetic could be used and may require laying out geophysical cables over identified targets.
- Airborne geophysical methods may be used (helicopter, hyperpod etc)

Drilling

- Drilling methods such as diamond drilling would likely be used with possibility of RC or RAB drilling. Drilling would be localized to discrete targets identified by geophysics and geological mapping. If the results are positive, then more drilling would take place.

Geochemical analysis and **mineralogical** studies at ALS Laboratories

All above methods supported by R&D geared towards a successful exploration program.

TYPICAL PLANNED EXPLORATION ACTIVITIES

SUPPORTING INFRASTRUCTURE, EQUIPMENT & SERVICES

- **ACCESS AND TRANSPORT**: The project area is located approximately 16km East of Tsumeb and about 30km North of Grootfontein in the Oshikoto and Otjozondjupa Regions. The site is accessible via the D3039 or D3021district roads from the M75 main road north and east of entered respectively. The EPL covers an area of approximately **78906** hectares in total.
- **WATER**: Initial stages, water will be brought to the site. As the project evolves into drilling and the establishment of a campsite, underground water will be used from either existing boreholes in the area or a new hole sunk. All permits from DWA will be applied for. Farm owner's agreements (if needed) will be entered into.
- **ELECTRICITY**: A combination of diesel-powered generators and solar energy sources.
- **ACCOMMODATION**: initially to rent farmhouses/commute from G-town or Tsumeb during the initial exploration phases (less than 5 personnel members).
- Thereafter, as the labor component expands a site camp may be established with temporary and semi-permanent infrastructure placements and the necessary controlled ablution facilities.

ENVIRONMENTAL IMPACT ASSESSMENT

Issues identified to be investigated include, but are not limited to:

Positive impacts

- Temp employment creation – (priority for locals)
- Income generation (local/national)
- Training opportunities – skills development

Negative impacts

- Possible fauna & flora disturbance
- Possibility of illegal hunting
- Land use conflict
- Minor visual, soil, water, air and noise pollution
- Health and safety impacts, if appropriate Personnel Protective Equipment (PPE) are not provided or used correctly
- Solid and hazardous waste management
- Possible disturbance to heritage/historically important area of interest

WAY FORWARD

- Distribute/ share minutes of public engagement meetings by 27 FEBRUARY 2025 to registered I&Aps
- Continue to engage I&Aps and attend to queries until End of FEBRUARY 2025
- Capture and summarize all inputs from interested and affected parties into a comments and response trail document which will be submitted to MEFT with the ESA/ EIA and EMRP reports, and the ECC application
- Compile the draft ESA/ EIA and EMRP reports & circulate to I&Aps for their review End of EARL FEBRUARY 2025 for a period of 7-days
- Finalize reports and submit to MEFT for final evaluation

14

WHAT YOU CAN DO!

- Provide in writing, any issues and suggestions regarding the proposed development. This correspondence must include:
  - ✓ Name & Surname;
  - ✓ Organization represented;
  - ✓ Position in the organisation;
  - ✓ Contact details and;
  - ✓ Any direct business, financial, personal or other interest which you may have in the approval or refusal of the application.
- Send written submissions to info@enviro-aec.com or @enviro-aec.com

LET US ENGAGE!!

Thank you!!

THE LAST DAY TO SEND COMMENTS IS ON 26 FEBRUARY 2025

info@enviro-aec.com
Cell: 0814351689

MINUTES - PUBLIC ENGAGEMENT & INFORMATION SHARING MEETING (18.02.25)

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MEETING MINUTES

Project Code	KDN_EPL9852
Project Name	KDN Geo Consulting /Philco 173 Pty (Ltd) – Environmental Impact Assessment (EIA) Process
Date	18 February 2025
Time	10:40 AM - 12:20 PM
Location/Venue	Abenab Lodge, Otjozondjupa Region, Namibia
Meeting Objectives	– Discuss the ECC application pertaining to the proposed prospecting and exploration of minerals including base and rare metals, industrial minerals, precious metals, and semi-precious stones, in the Oshikoto and Otjozondjupa Regions of Namibia; – Provide information describing the proposed Phase 1 exploration project and associated activities; – Provide an overview of the independent environmental and social assessment of the activities associated with the proposed exploration project; and – Explain the development of management and mitigation measures associated with any identified potential impacts where necessary.
Presentation Summary	1. Welcoming Remarks 2. Introduction • Project background and purpose. 3. Proposed Planned Activities • Planning and permitting. • Site preparation (temporary camps if needed). • Supporting infrastructure (access, energy, water). • Drill site preparation and drilling operations. • Decommissioning and rehabilitation. 4. Exploration Methods. • Desktop review of existing data. • Regional reconnaissance, mapping, and sampling. • Detailed geological mapping, surveying, trenching (unlikely), and drilling. • Exploration resource evaluation and site-specific drilling. • Pre-feasibility studies (bulk sampling, drilling, and testing). 5. Public Participation Process • Explanation of the community's role and feedback opportunities.

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	• Support Infrastructure, Equipment & Services • Access & Transport: Site located near Tsumeb and Grootfontein. • Water: Initially transported to site or extracted from boreholes with owners permission. • Electricity: Diesel generators or solar energy. • Accommodation: Rented farmhouses or commuting, potential site camp. 6. Need and Desirability of the Project - Emphasized the project's potential to contribute to local and national socio-economic development through job creation, income generation, and skills development. 7. Environmental Impact Assessment (EIA) - Overview of the EIA process to identify, assess, and mitigate potential environmental and social impacts of the proposed project. 8. Discussion and feedback from participants.
Attendees (As per the register attached)	1. Ms. Lovisa Amwele – Alliance Environmental Consultancy 2. Ms. Emerita Ashipala – Consultant Administration Support and EAP 3. Mr. Kaura Kaura – KDN Geo Consulting/Philco 173 4. Marco Blume – Abenab Boerevereniging 5. Andreas Blume – Abenab Boerevereniging 6. Susan Fourie – Christiana Boedery 7. Jerry N Mbwale – Farm Abenab 8. C J Von Molendaff – Farm Cadix 678 9. J F Robberbe – Farm Cadix 678 10. I Van Lill – Farm Buffallo 676 11. D E Bisschoff – Farm Grootbaston 1343 12. L Potgieter – Potgieter Boedery 13. H Kruger – Adrenalin Safari 14. Cobus Coetzee – Lanzo Farming
Proceedings	The meeting opened with a word of welcome from Ms. Amwele and introductions of the hosting group as well as the attendees were made. Thereafter the presentation commenced with an overview provided of the project in terms of the proponent, the EIA process, proposed project activities and general setting of the EPL. Mr. Kaura then took the floor to explain in detail to the audience the proposed exploration methodology envisioned by the proponent for EPL 9852. Present in the

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	meeting were individuals who were not proficient in conversational English, therefore Mr. Kaura explained the earlier part of his discussion in Afrikaans and briefly translated to English. An explanation of the baseline studies commissioned by Alliance Environmental Consultancy was provided as well as the potential impacts expected to be addressed in the assessment process. The development of an environmental management plan as a product of the assessment was explained in the meeting. The meeting concluded with a spokesperson (Mr. Cobus Coetzee) being nominated to act as the contact point for the stakeholders/farmers for this EIA process. The meeting closed at 12:20PM.

DISCUSSIONS AND FEEDBACK FROM PARTICIPANTS

1. **Historic environmental damage by mining companies**

"We previously had a company drill on our farm, but the operators left without properly addressing the environmental damage. We are now left to bear the costs and consequences of cleaning up their mess"

- We fully understand your frustration and the challenges you've faced. While we can't speak for the previous operators, we are committed to ensuring that our approach is different. To prevent this from happening again, we will develop comprehensive contracts that clearly outline our responsibility for any damage caused, including covering the cost of cleanup and restoring the land close to its original condition. We aim to leave a positive legacy and build trust within the community.

2. **Pristine vegetation/orchards on some farmlands**

"What will happen to the large trees and orchards on our land? We have pristine vegetation, and the EIA doesn't seem to address these concerns adequately."

- In the early stages of the project, the activities are non-intrusive, primarily involving geological mapping to delineate potential drilling areas. As drilling has not yet been confirmed or targeted for specific parts of the farm, it wouldn't be practical to survey all vegetation at this stage. However, once a specific target is identified, we will commission further studies should the need arise to assess the impact on the vegetation. Additionally, if sensitive areas are identified, specific agreements can be made to protect them.

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3. **Factors leading to the large EPL size demarcated**

"Why is the EPL area mapped out to be so large? What factors led to the proponent choosing this particular area?"

- The size of the EPL area is determined by a combination of geological factors and the need to assess a broader region for potential mineral deposits. The proponent chose this area based on preliminary geological studies that indicate its potential for base and rare metals, industrial minerals, and precious stones. A larger area allows for a more comprehensive exploration process and increases the likelihood of identifying viable targets. As exploration progresses, the area of interest may be refined based on the findings and focus on the most promising sites.

4. **Existence of other EPL adjacent to EPL 9852**

"Are there any EPLs or interests adjacent to this EPL?"

- Yes, most likely. MME has a portal cadaster indicating all mineral licenses in the area: Namibia Mines and Energy Cadastre Map Portal - Spatial Dimension Landfolio. https://portals.landfolio.com/namibia/

5. **Access through multiple farms to target areas**

"Sometimes accessing one farm means passing through several other farms. How will access be handled as we have certain access controls?"

- Yes, it is important to address access concerns, especially when it involves crossing through multiple properties. To ensure proper access and avoid any disruptions, we wish to get contact numbers of all individual landowners, possibly through the farmers' union. We will secure all formal agreements with all affected landowners before any activities begin. We will ensure that comprehensive contracts are put in place, detailing the terms of access, compensation, and any other relevant provisions.

6. **Sharing of lab analysis results**

'Will the data on mineral prospecting be shared with us?"

- Unfortunately, the company retains rights over the data gathered during the prospecting phase. However, after a certain period, the data is submitted to the state. At that point, the state holds the data, and there is a certain level of information that farmers and landowners can receive. We understand the importance of transparency and will make sure to share any relevant information that is permissible within the regulatory framework.

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7. Presence of harmful minerals/elements in the target rock areas

"I'm particularly concerned about various associated minerals that come with others, which could be harmful, such as arsenic, sulfates, etc. You may provide information on the minerals you are interested in, and send that to the lab, but what happens to other minerals that are not tested for but could be harmful? We would like to see those test samples."

- Should a potential deposit be discovered the exploration process be intensified. Nearby boreholes are tested regularly for water quality both before and after any exploration activities. While the potential for contamination during exploration drilling is considered low, the proponent prioritizes environmental safety and takes all necessary precautions to ensure that the environment remains protected. The inclusion of other elements in the lab analysis can be discussed with the proponent further.

8. Company shareholders

"Who are the shareholders of the company?

- KDN Geo Consulting the applicant is a partner company to Philco 173 a Namibian registered company that is 95% owned by Cazaly Resources and Cazaly Resources is a public company listed on the Australian Stock Exchange.

9. Historic environmental damage by mining companies

"We cannot plant certain vegetation because of previous mining that has occurred in the area. Animals cannot graze, so we are limited to edible land use. Companies seem to only focus on their minerals and don't consider the impact on farmers. There are cumulative impacts that come with mining. How will we address these? We understand the proponent may be friendly now, but we often end up with little use for our land after the exploration or mining process."

- We understand your concerns about the long-term impact of mining on your land. To address these, we propose establishing clear contract agreements that outline the company's responsibilities for land protection, rehabilitation, and mitigation of any negative effects. We can establish comprehensive agreements that clearly outline the responsibilities of the company in terms of land protection, rehabilitation, and any other potential impacts. These contracts will ensure that, if exploration damages the land, the company will be legally obligated to address the environmental challenges you've mentioned.
- The agreements will also address any unforeseen issues during exploration and provide a framework for ongoing communication and resolution. Additionally, before obtaining a mining license from the Ministry of Mines and Energy, a feasibility study will be conducted, and a detailed environmental assessment will be commissioned if the project advances to mining. We are

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committed to collaborating with you and other stakeholders to ensure the land remains viable for farming and other uses in the future.

- ***Comment:*** Exploration activities have a limited impact and are highly localized. However, more significant concerns will arise if the project moves to mining. Given this, I strongly suggest that rehabilitation and closure plans be developed from the very beginning, along with the allocation of funds specifically set aside to address any potential issues that may arise.
- ***Comment:*** When mining takes place on private farmland, it causes significant legal and financial disruptions for farmers. The affordability of managing these changes becomes a serious issue. While we understand the importance of development, it becomes difficult to collaborate effectively with the proponent when we are faced with the additional burden of legal complexities, legal fees, and the potential costs involved. This often results in farmers becoming overwhelmed with having to address these matters, such as finding lawyers, dealing with legal challenges, and managing other related issues. I strongly suggest that farmers thoroughly consider all these factors before agreeing to such activities on their land, as the long-term implications can be far-reaching.

10. **Impact of the project on the local employment force**

"What will happen to us farmers that have over 500 workers working in the farm? How will the mining impact these employees?"

- During exploration, the need for labor is generally limited and temporary, and only a few workers may be required. However, where additional hands are needed, farm workers are encouraged to assist, with the permission of the landowners. This arrangement ensures that their primary responsibilities on the farm are not disrupted, and it is typically safer for farm workers to be involved rather than bringing in unfamiliar individuals, which could cause unnecessary disturbances. When it comes to mining, the impact on farm workers will be assessed during the feasibility studies. The potential effects on the workforce will be carefully considered, and specific measures will be put in place to address any concerns during the mining phase. This may include strategies to minimize disruptions and ensure that the livelihood of farm workers is not negatively impacted.

11. **The Environmental Consultant**

"Is the environmental consultant from the government or independent?"

- The environmental consultants involved are independent bodies that are contracted by the proponent to conduct studies, prepare the Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) reports. These reports are then reviewed and submitted to the competent authority, which in this case is the Ministry of Mines and Energy, as well as the

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issuing authority (Ministry of Environmental, Forestry and Toursim). After reviewing the reports, the authorities will provide a record of decision, determining whether to grant or deny the proponent an Environmental Clearance Certificate (ECC).

12. Farmers/landowners' rights

"Where do we know where our boundaries end. How can we determine the boundaries of our land in relation to authorizing these activities? What do the Mining Act, and the Environmental Management Act say about our rights as landowners? Where do our rights begin and end in this context? Could you share the relevant details regarding this?"

- Under the Mining Act and the Environmental Management Act, landowners have specific rights and responsibilities related to mineral exploration and mining activities on their land. The Mining Act outlines the procedures for granting exploration and mining licenses, while the Environmental Management Act ensures that all activities comply with environmental regulations to protect landowners' rights.
- As a landowner, your rights include being consulted during the public participation process, and you have the right to agree or disagree with any exploration or mining activities on your land. You also have the right to seek compensation for any damage caused by these activities, which should be addressed through proper contractual agreements. However, the rights of the proponent to conduct exploration or mining activities are subject to obtaining the necessary permits and licenses from the relevant authorities. These legal documents will outline the areas where activities are permitted, and where they are not, providing clarity on the boundaries and the terms under which activities can take place. In summary, landowners retain control over their property, but exploration and mining activities are regulated by the government, and certain permits and agreements are required for these activities to proceed.
- The farmers proposed that they all review the Access agreements jointly and provide their comment for it to be standardized when we get to that stage.

13. Community understanding towards

"We are sitting here as farm owners; however, we are largely supported by communities around us. We depend on them, and they depend on us. However, these communities have limited understanding of the current activities, and they are being excluded from the discussions. This lack of involvement and awareness creates uncertainty and concern among them. It is essential that they are included in the process, so they can understand the potential impacts and benefits of the proposed activities. We are the cornerstone of the Agri business hence should not be overlooked for the interest of mining?"

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- The input is well noted and shall be considered. It is therefore recommended that before exploration commences, the farm communities are engaged and made aware of the intended activities on the EPL.

14. **Drill site delineation**

"Have you identified points for drilling yet?"

- We have started pondering on probable drill targets, but we are by no means anywhere close to finalizing it as there are so many moving pieces.

15. **Unannounced visits from heritage specialist**

"There was a gentleman from UNAM who came without permission, who was he, and why was he here? We demand respect when being approached, including proper communication via call or email and formal appointment arrangements"

- The gentleman was an archaeologist conducting heritage and cultural studies as part of the Environmental Impact Assessment (EIA). We did provide him with contact information that was shared with us, but we were unaware that formal appointments had not been arranged. We apologies for any inconvenience this caused and will ensure that proper appointment is followed going forward. Thank you for bringing this to our attention.

16. **Water drilling**

"How is water drilling conducted during exploration? What happens if water is encountered during drilling? What permits are required for this, and how do they differ from the permits required for the drilling activities you are planning."

- Permits for water drilling are required under the Water Resources Management Act, and the specific permits depend on the type of water source being accessed, its location, and the intended use of the water. These permits are distinct from exploration drilling permits, which are primarily focused on mineral exploration.
- If water is encountered during drilling, the responsibility for its development and management typically falls to the landowner or farmer. The farmer has the discretion to decide whether to continue with the development and infrastructure needed for water extraction. This would involve ensuring the appropriate permits are in place, particularly for water rights and usage, which are governed by the Water Resources Management Act.

17. **Drill hole sizes**

"What is the size of the drilling hole?

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- The size of the drilling hole can vary depending on the type of drilling being conducted and the specific objectives of the exploration or water drilling.
- For mineral exploration, the typical size of the drilling hole can range from 4 to 10 inches in diameter, but this can be larger for deeper drilling or more specific operations. The hole size will generally be determined by the equipment used and the depth of the drilling required.

Final remarks:

- "I truly appreciate the efforts towards development, but as farmers, we must carefully consider all aspects and seek proper guidance before moving forward. It's crucial for us to understand where our rights end and where they begin, and to be clear on how we can navigate through the complexities of this proposed project.
- We kindly request an extension for submitting our comments, from the initial 7 days to 14 days. As farmers, we already have significant responsibilities, and this process requires proper research and attention, which we hope can be accommodated".

Conclusion

- The meeting was adjourned with appreciation extended to all participants for their time and insightful contributions. The consultant highlighted the importance of submitting any recommendations, concerns, or feedback in writing to Alliance Environmental Consultancy via phone at 0814351689 or email at info@enviro-aec.com or enviro.aec@gmail.com for further review and action.

Way Forward	1. Share the following documents to ensure transparency and informed decision-making: o The draft EIA and EMP reports. o All the relevant Acts related to activities o The minutes of this meeting. 2. Mr. Kobus Coetzee with be the point of contact for the farmer. 3. Continuous communication throughout the process.
Meeting Tone	Calm, friendly and constructive
Meeting Adjourned	12:20 PM

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ATTENDANCE REGISTER

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PROJECT: ECC Application EPL 9852

VENUE: Aberab LODGE

DATE: 18/02/25 TIME: 10:35

	NAME & SURNAME	ORGANIZATION	TEL/CELL NUMBER	EMAIL ADDRESS
1	Emerita Ashipala	Consultant Support admin	0817016551	emeritaashipala@gmail.com
2	Marco Blume	Abenab Boereverenigining	081 2480249	marco.sblume97@gmail.com
3	Andreas Blume	"	081 7335448	andreas@damarandi.com
4	Susan Faure	Christiana Boedery	081 2998836	susanh@iway.na
5	JERRY N MBUSANDE	FARM ABENAB	081755 2201	
6	C J Von Molendorff	farm. Cadix 678	067-232018	vonmolen.22 G Mail.
7	J.F ROBBERTSE	FARM CADIX 678	0813719165	swysrobbertse@gmail.com
8	I. VAN Lill	FARM Buffallo 676	0812448280	sulssievanlill66@gmail.com
9	D.E. Bisschoff	Farm Grootboutan 1343	0811228691	de.bisschoff@gmail.com
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Meeting Minutes	Version V002
Compiled by Emerita Ashipala	18 February 2025
Authorized by Lovisa Amwele	Page **10** of **12**

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PROJECT: ECC APPLICATION EPL 9852

VENUE: ABenb Lodge

DATE: 18/08/25 TIME: 10:35

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1	L. Potgieter	Potgiet Boerdery	0811486910	potboerdery@gmail.com
2	H. Kruger	Adrenalin Safari	0812296143	krugergroups@gmail.com
3	C Coetzee	Lanzoi Farming	0814355616	[illegible]@gmail.com
4	Kaura Kaura	PHILCO	0811663344	kauropotuari@gmail.com
5	Lovisa Amwele	Alliance Enviro	0814351689	lorisa@enviro-aec.com
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Meeting Minutes	Version V002
Compiled by Emerita Ashipala	18 February 2025
Authorized by Lovisa Amwele	Page 11 of 12

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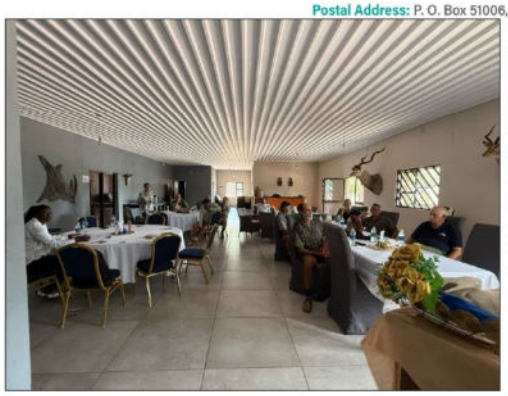

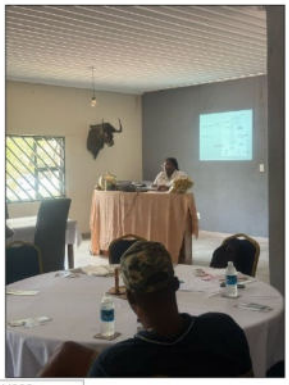
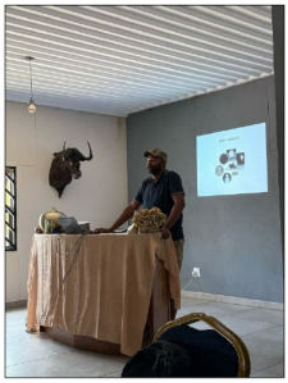

Meeting Minutes	Version V002
Compiled by Emerita Ashipala	18 February 2025
Authorized by Lovisa Amwele	Page 12 of 12

REGISTERED AND IDENTIFIED STAKEHOLDER LIST

ORGANIZATION/AUTHORITY	CONTACT PERSON	CAPACITY
Ministry of Agriculture, Water & Forestry: Forestry Directorate		Commissioner
Ministry of Mines and Energy	Mrs. Isabella Chirchir	Mining Commissioner
Ministry of Environment and Tourism	Mr. Timoteus Mufeti	Environmental Commissioner
Oshikoto Regional Council		
Otjozondjupa Regional Council		

FARM NAME	FARM NO	FARM OWNER	CONTACT PERSON	POST:	EMAIL:
Hiebis Nord	339	OFW Tietz			
Aahus	659	R Botes	J Pu Plessis (resident Aalborg)	P O Box 1300, Oshakati	
Abo	502	GVR Henning (Gerhard) (resident Abo)			glhenning@iway.na
Accra	660	GVR Henning (Gerhard) (resident Abo)		P O Box 85, Tsumeb	glhenning@iway.na
Aden	662	GVR Henning (Gerhard) (resident Abo)		P O Box 1591, Tsumeb	glhenning@iway.na
Birkenhead	669	GVR Henning (Gerhard) (resident Abo)		P O Box 1591, Tsumeb	glhenning@iway.na
Cooktown	504	GVR Henning (Gerhard) (resident Abo)			glhenning@iway.na
Bombay	670	Cobus Coetzee	Cobus Coetzee (buying?)	P O Box 1418, Tsumeb	Cobus.nf@gmail.com
Brisbane	674	LM Potgieter (Lourens)&Winnie Metzger	Cobus Coetzee (leasing)	P O Box 306, Tsumeb	
Ebenezer	836	W V Hamukonda (Wasman)	Toivo	P O Box 423, Tsumeb	
Deal	698	MKabanda	Lukas(resident foreman)	P O Box 1042, Tsumeb	

Cleveland	706	Tannie Susan (mother) & Louis (son) Fourie	Tannie Susan (mother) & Louis (son) Fourie	P O Box 63, Grootfontein	louisfouriesosh@gmail.com
Christiana		Tannie Susan (mother) & Louis (son) Fourie	Tannie Susan (mother) & Louis (son) Fourie		louisfouriesosh@gmail.com
Abenab	707	J Mbwale (Jerry) & Lorna Mbwale	J Mbwale (Jerry) & Lorna Mbwale	P O Box 4464, Windhoek	info@abenablodge.com
Vanadia	540	U. Kuvare (Resettled Farmers)		P O Box 490, Grootfontein	
Aarhuis	435	Enkara			enkara44@gmail.com
Boston	671	D E Bisschoff	Polla Potgieter (resident Cuxhaven)	P O Box 757, Tsumeb	
Old Smithfield	541	C D Potgieter		P O Box 204, Tsumeb	
Section 1 (Windpoort)					
Khusib					
Cadix	570	Leon Von Molendorf & Francois 9son-in-law)			vonmolen@iway.na
Akwa Plumbing & Projects CC		Pieter van Staden			pieter@akwaprojects.com
Farm Old Smithfield no 1233 Abenab Adrenalin Safari CC	1233	Hennie Kruger		PO Box 1432 Tsumeb	krugergroups@gmail.com

APPENDIX E - FLORA SPECIES LIST (National Botanical Research Institute)

SPECIES	ENDEMISM	PROTECTED	IUCN1	IUCN2
Abutilon fruticosum Guill. & Perr.				
Abutilon hirtum (Lam.) Sweet var. hirtum				
Acacia fleckii Schinz				
Acacia hereroensis Engl.				
Acacia luederitzii Engl. var. luederitzii				
Acacia nilotica (L.) Willd. ex Delile subsp. kraussiana (Benth.) Brenan				
Acacia reficiens Wawra subsp. reficiens				
Acalypha ciliata Forssk.				
Acanthosicyos naudinianus (Sond.) C.Jeffrey				
Acanthospermum hispidum DC.				
Acrocephalus sericeus Briq.				
Actiniopteris radiata (J.König ex Sw.) Link				
Adansonia digitata L.		Forestry Protected		
Aerva leucura Moq.				
Alysicarpus rugosus (Willd.) DC. subsp. rugosus				
Amaranthus hybridus L. subsp. cruentus (L.) Thell.				
Ammannia baccifera L. subsp. baccifera				
Ammocharis coranica (Ker Gawl.) Herb.				
Ammocharis nerinoides (Baker) Lehmiller	Endemic			Near Threatened
Androcymbium roseum Engl.				
Andropogon chinensis (Nees) Merr.				
Andropogon schirensis Hochst. ex A.Rich.				
Aptosimum decumbens Schinz				
Aptosimum lineare Marloth & Engl.				
Aristida effusa Henrard				
Aristida hordeacea Kunth				
Asparagus nelsii Schinz				

Asparagus pearsonii Kies				
Barleria lancifolia T.Anderson subsp. lancifolia				
Barleria senensis Klotzsch				
Bauhinia petersiana Bolle subsp. macrantha (Oliv.) Brummitt & J.H.Ross				
Berchemia discolor (Klotzsch) Hemsl.				
Bergia ammannioides B.Heyne ex Roth				
Bidens pilosa L.				
Blepharis obmitrata C.B.Clarke				
Boerhavia diffusa L. diffusa				
Boscia albitrunca (Burch.) Gilg & Gilg-Ben.		Forestry Protected		
Bothriochloa insculpta (Hochst. ex A.Rich.) A.Camus				
Brachiaria deflexa (Schumach.) C.E.Hubb. ex Robyns				
Brachiaria malacodes (Mez & K.Schum.) Scholz				
Brachiaria schoenfelderi C.E.Hubb. & Schweick.	Endemic			
Brachystelma dinteri Schltr.				
Brachystelma stenophyllum (Schltr.) R.A.Dyer				Near Threatened
Buchnera hispida Buch.-Ham. ex D.Don				
Caesalpinia rubra (Engl.) Brenan				
Calostephane divaricata Benth.				
Carissa edulis (Forssk.) Vahl				
Cassine transvaalensis (Burtt Davy) Codd				
Celosia trigyna L.				
Cenchrus ciliaris L.				
Cephalocroton mollis Klotzsch				
Chamaecrista absus (L.) H.S.Irwin & Barneby				
Chascanum pinnatifidum (L.f.) E.Mey. var. pinnatifidum				
Cheilanthes dinteri Brause				
Cheilanthes marlothii (Hieron.) Schelpe				
Chlorophytum calyptrocarpum (Baker) Kativu				
Chrysopogon nigritanus (Benth.) Veldkamp				

Cienfuegosia digitata Cav.				
Cleome angustifolia Forssk. subsp. diandra (Burch.) Kers				
Coccinia rehmannii Cogn.				
Combretum collinum Fresen. subsp. gazense (Swynn. & Baker f.) Okafor				
Combretum engleri Schinz				
Combretum imberbe Wawra				
Combretum zeyheri Sond.				
Commelina africana L. var. krebsiana (Kunth) C.B.Clarke				
Commiphora angolensis Engl.				
Commiphora calciicola Engl.				
Commiphora glandulosa Schinz				
Commiphora nigrescens Engl.				
Commiphora tenuipetiolata Engl.				
Conyza albida Spreng.				
Corallocarpus bainesii (Hook.f.) A.Meeuse				
Corchorus asplenifolius Burch.				
Cordia monoica Roxb.				
Crinum rautanenianum Schinz				
Crotalaria podocarpa DC.				
Crotalaria sphaerocarpa Perr. ex-DC. subsp. sphaerocarpa				
Croton gratissimus Burch. var. gratissimus				
Croton gratissimus Burch. var. subgratissimus (Prain) Burtt Davy				
Croton menyharthii Pax				
Cucumis africanus L.f.				
Cyathula lanceolata Schinz				
Cynodon dactylon (L.) Pers.				
Cyperus amabilis Vahl				
Cyperus compressus L.				
Cyperus difformis L.				

Cyperus esculentus L. var. esculentus				
Cyperus longus L. subsp. tenuiflorus (Rottb.) Kük.				
Cyperus longus L. var. tenuiflorus (Rottb.) Boeck.				
Cyperus margaritaceus Vahl var. margaritaceus				
Dactyliandra welwitschii Hook.f.				
Dalechampia scandens L. var. cordofana (Hochst. ex-Webb) Müll.Arg.				
Datura inoxia Mill.				
Dichapetalum cymosum (Hook.) Engl.				
Dichrostachys cinerea (L.) Wight & Arn. subsp. africana Brenan & Brummitt var. africana				
Dicoma schinzii O.Hoffm.				
Dicoma tomentosa Cass.				
Digitaria eriantha Steud.				
Digitaria milanjiana (Rendle) Stapf				
Dioscorea quartiniana A.Rich.				
Dioscorea quartiniana A.Rich. var. latifolia R.Knuth				
Dipcadi marlothii Engl.				
Distephanus divaricatus (Steetz) H.Rob. & B.Kahn				
Dombeya rotundifolia (Hochst.) Planch. var. rotundifolia				
Echinochloa crus-galli (L.) P.Beauv.				
Ehretia alba Retief & A.E.van Wyk				
Ehretia namibiensis Retief & A.E.van Wyk subsp. namibiensis	Endemic			
Elaeodendron transvaalense (Burtt Davy) R.H.Archer				
Eleusine coracana (L.) Gaertn. subsp. africana (Kenn.-O'Byrne) Hilu & De Wet				
Elytrophorus spicatus (Willd.) A.Camus				
Enicostema axillare (Lam.) A.Raynal subsp. axillare				
Enneapogon cenchroides (Licht. ex Roem. & Schult.) C.E.Hubb.				
Enneapogon desvauxii P.Beauv.				

Enteropogon macrostachyus (Hochst. ex A.Rich.) Munro ex Benth.				
Eragrostis dinteri Stapf				
Eragrostis echinochloidea Stapf				
Eragrostis membranacea Hack. ex Schinz				
Eragrostis porosa Nees				
Eragrostis rigidior Pilg.				
Eragrostis superba Peyr.				
Erianthemum ngamicum (Sprague) Danser				
Eriocaulon transvaalicum N.E.Br. subsp. transvaalicum				
Eriocephalus luederitzianus O.Hoffm.				
Eriospermum rautanenii Schinz				
Eriospermum triphyllum Baker				
Erucastrum arabicum Fisch. & C.A.Mey.				
Erythrina decora Harms	Endemic	Forestry Protected		
Erythrococca menyharthii (Pax) Prain				
Euclea divinorum Hiern				
Euclea undulata Thunb.				
Euclea undulata Thunb. var. myrtina (Burch.) Hiern				
Euphorbia cyathophora J.Murray				
Euphorbia transvaalensis Schltr.				
Ficus cordata Thunb. subsp. cordata		Forestry Protected		
Ficus sycomorus L. subsp. gnaphalocarpa (Miq.) C.C.Berg				
Fingerhuthia africana Lehm.				
Flaveria bidentis (L.) Kuntze				
Flueggea virosa (Roxb. ex Willd.) Voigt subsp. virosa				
Fockea angustifolia K.Schum.				
Fockea multiflora K.Schum.				
Fuirena coerulescens Steud.				
Gardenia volkensii K.Schum. subsp. spatulifolia (Stapf & Hutch.) Verdc.				
Geigeria odontoptera O.Hoffm.	Endemic			

Geigeria ornativa O.Hoffm.				
Geigeria otaviensis (Merxm.) Merxm.	Endemic			
Gisekia africana (Lour.) Kuntze var. africana				
Gloriosa superba L.				
Gomphocarpus tomentosus Burch. subsp. tomentosus				
Grewia flava DC.				
Grewia retinervis Burret				
Gymnema sylvestre (Retz.) R. Br. ex Schult.				
Gymnosporia buxifolia (L.) Szyszyl.				
Gymnosporia maranguensis (Loes.) Loes.				
Gymnosporia senegalensis (Lam.) Loes.				
Gyrocarpus americanus Jacq. subsp. africanus Kubitzki				
Helichrysum candolleanum H.Buek				
Helinus integrifolius (Lam.) Kuntze				
Heliotropium ovalifolium Forssk.				
Heliotropium steudneri Vatke				
Heliotropium strigosum Willd. subsp. strigosum				
Hermannia eenii Baker f.				
Hermannia stricta (E.Mey. ex Turcz.) Harv.				
Hermbstaedtia odorata (Burch.) T.Cooke var. albi-rosea Suess.				
Hermbstaedtia odorata (Burch.) T.Cooke var. odorata				
Heteranthera callifolia Rchb. ex Kunth				
Heteropogon contortus (L.) Roem. & Schult.				
Hibiscus caesius Garcke var. caesius				
Hyparrhenia hirta (L.) Stapf				
Hypoestes forskaolii (Vahl) R.Br. subsp. forskaolii				
Indigastrum costatum (Guill. & Perr.) Schrire subsp. macrum (E.Mey.) Schrire				
Indigofera astragalina DC.				
Indigofera charlieriana Schinz var. charlieriana				
Indigofera daleoides Benth. ex Harv. var. daleoides				

Indigofera flavicans Baker				
Indigofera flavicans Baker var. flavicans				
Indigofera heterotricha DC. subsp. pechuelii (Kuntze) Schrire				
Ipomoea adenioides Schinz var. adenioides				
Ipomoea obscura (L.) Ker Gawl. var. obscura				
Jasminum fluminense Vell subsp. fluminense				
Justicia odora (Forssk.) Vahl				
Kalanchoe lanceolata (Forssk.) Pers.				
Kohautia aspera (B. Heyne ex Roth) Bremek.				
Kohautia caespitosa Schnizl. subsp. brachyloba (Sond.) D.Mantell				
Kyllinga alba Nees				
Kyphocarpa angustifolia (Moq.) Lopr.				
Laggera decurrens (Vahl) Hepper & J.R.I.Wood				
Lannea discolor (Sond.) Engl.				
Lapeirousia bainesii Baker				
Lapeirousia schimperi (Asch. & Klatt) Milne-Redh.				
Leucosphaera bainesii (Hook.f.) Gilg				
Limeum fenestratum (Fenzl) Heimerl var. fenestratum				
Limeum myosotis H.Walter var. confusum Friedrich				
Limeum sulcatum (Klotzsch) Hutch. var. gracile Friedrich				
Limeum viscosum (J.Gay) Fenzl subsp. viscosum var. macrocarpum Friedrich				
Lipocarpha micrantha (Vahl) G.C.Tucker				
Lipocarpha rehmannii (Ridl.) Goetgh.				
Maerua schinzii Pax		Forestry Protected		
Marsdenia macrantha (Klotzsch) Schltr.				
Marsdenia sylvestris (Retz.) P.I.Forst.				
Melanthera marlothiana O.Hoffm.				
Melhania acuminata Mast. var. acuminata				
Melhania virescens (K.Schum.) K.Schum.				

Melinis repens (Willd.) Zizka subsp. grandiflora (Hochst.) Zizka				
Merremia palmata Hallier f.				
Microchloa caffra Nees				
Microchloa indica (L.f.) P.Beauv.				
Miscanthus junceus (Stapf) Pilg.				
Mollugo nudicaulis Lam.				
Momordica humilis (Cogn.) C.Jeffrey				
Monechma debile (Forssk.) Nees				
Montinia caryophyllacea Thunb.				
Neorautanenia mitis (A.Rich.) Verdc.				
Nesaea rigidula (Sond.) Koehne				
Nidorella resedifolia DC. subsp. resedifolia				
Ochna cinnabarina Engl. & Gilg				
Ochna pulchra Hook.f.				
Ocimum americanum L. var. americanum				
Ocimum filamentosum Forssk.				
Olea europaea L. subsp. africana (Mill.) P.S.Green				
Oligomeris dipetala (Aiton) Turcz. var. dipetala				
Opilia campestris Engl. var. campestris				
Ornithoglossum calcicola K.Krause & Dinter	Endemic			
Ornithoglossum vulgare B.Nord.				
Oropetium capense Stapf				
Osyris lanceolata Hochst. & Steud.				
Otoptera burchellii DC.				
Ozoroa crassinervia (Engl.) R.Fern. & A.Fern.				
Ozoroa insignis Delile subsp. insignis				
Ozoroa paniculosa (Sond.) R.Fern. & A.Fern. var. paniculosa				
Ozoroa schinzii (Engl.) R.Fern. & A.Fern.	Near Endemic			
Pachypodium lealii Welw.	Near Endemic	Protected		
Pancratium tenuifolium Hochst. ex A.Rich.				

Panicum coloratum L. var. coloratum				
Panicum gilvum Launert				
Panicum maximum Jacq.				
Parapolydora fastigiata (Oliv. & Hiern) H.Rob.				
Pavetta zeyheri Sond.				
Pavonia burchellii (DC.) R.A.Dyer				
Pegolettia senegalensis Cass.				
Peltophorum africanum Sond.		Forestry Protected		
Pennisetum glaucum (L.) R.Br.				
Pergularia daemia (Forssk.) Chiov. var. daemia				
Petalidium englerianum (Schinz) C.B.Clarke				
Petalidium rautanenii Schinz	Endemic			
Philenoptera nelsii (Schinz) Schrire				
Phyllanthus maderaspatensis L.				
Phyllanthus pentandrus Schumach. & Thonn.				
Physalis angulata L.				
Plicosepalus undulatus (E.Mey. ex Harv.) Tiegh.				
Polygala leptophylla Burch. var. leptophylla				
Portulaca kermesina N.E.Br.				
Pseudogaltonia clavata (Mast.) E.Phillips				
Psydrax livida (Hiern) Bridson				
Rennera eenii (S.Moore) Källersjö	Endemic			Near Threatened
Rennera limnophila Merxm.				
Rhus ciliata Licht. ex Schult.				
Rhus marlothii Engl.				
Rhynchosia minima (L.) DC. var. minima				
Rhynchosia minima (L.) DC. var. prostrata (Harv.) Meikle				
Rhynchosia sublobata (Schumach. & Thonn.) Meikle				
Rotheca myricoides (Hochst.) Steane & Mabb. var. myricoides				
Rottboellia cochinchinensis (Lour.) Clayton				

Sansevieria aethiopica Thunb.				
Schmidtia pappophoroides Steud.				
Schoenoplectiella leucantha (Boeck.) Lye				
Scleria longispiculata Nelmes				
Sclerocarpus africanus Jacq.				
Seddera suffruticosa (Schinz) Hallier f. var. suffruticosa				
Senna italica Mill. subsp. micrantha (Brenan) Lock				
Sericorema sericea (Schinz) Lopr.				
Sesamum triphyllum Welw. ex-Asch. var. grandiflorum (Schinz) Merxm.				
Sesamum triphyllum Welw. ex-Asch. var. triphyllum				
Sesuvium sesuvioides (Fenzl) Verdc. var. angustifolium (Schinz) Gonç.				
Setaria sagittifolia (A.Rich.) Walp.				
Setaria sphacelata (Schumach.) Stapf & C.E.Hubb. ex M.B.Moss var. sericea (Stapf) Clayton				
Setaria verticillata (L.) P.Beauv.				
Sida ovata Forssk.				
Solanum delagoense Dunal				
Solanum tettense Klotzsch var. renschii (Vatke) A.E.Gonç.				
Sorghum bicolor (L.) Moench subsp. arundinaceum (Desv.) De Wet & Harlan				
Spirostachys africana Sond.				
Sporobolus panicoides A.Rich.				
Stapelia schinzii A.Berger & Schltr. var. schinzii	Endemic	Protected		
Steganotaenia araliacea Hochst. var. araliacea				
Stigmatorhynchus hereroensis Schltr.	Endemic			
Striga asiatica (L.) Kuntze				
Syncolostemon bracteosus (Benth.) D.F. Otieno				
Tapinanthus guerichii (Engl.) Danser				
Tephrosia purpurea (L.) Pers. subsp. leptostachya (DC.) Brummitt var. pubescens Baker				
Terminalia prunioides M.A.Lawson				

Terminalia sericea Burch. ex-DC.				
Tinnea rhodesiana S.Moore				
Trachyandra arvensis (Schinz) Oberm.				
Trachypogon spicatus (L.f.) Kuntze				
Tragia okanyua Pax				
Tragus pedunculatus Pilg.				
Tragus racemosus (L.) All.				
Triaspis hypericoides (DC.) Burch. subsp. nelsonii (Oliv.) Immelman				
Tribulus terrestris L.				
Trichodesma angustifolium Harv. subsp. argenteum Retief & A.E.van Wyk				
Trochomeria macrocarpa (Sond.) Hook.f. subsp. vitifolia (Hook.f.) R.Fern. & A.Fern.				
Tulbaghia tenuior K.Krause & Dinter				
Urochloa panicoides P.Beauv.				
Urochloa trichopus (Hochst.) Stapf				
Vangueria proschii Briq.				
Waltheria indica L.				
Willkommia annua Hack.				
Ximenia caffra Sond. var. caffra				
Zannichellia palustris L.				

APPENDIX F – HERITAGE IMPACT ASSESSMENT