ENVIRONMENTAL SCOPING REPORT PLUS IMPACT ASSESSMENT

EXPLORATION ACTIVITIES ON EPL 7435 FOR NUCLEAR FUEL MINERALS

ERONGO REGION

PREPARED FOR

MARENICA VENTURES (PTY) LTD

March 2021
EXPLORATION ACTIVITIES ON EPL 7435
MARENICA VENTURES (PTY) LTD

TITLE AND APPROVAL PAGE

Project Name: Proposed exploration activities on EPL 7435 for nuclear fuel minerals, in the
Erongo Region

Client Name: Marenica Energy Ltd – Marenica Ventures (Pty) Ltd

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EXECUTIVE SUMMARY

Marenica Ventures (Pty) Ltd (herein referred to as the proponent or Marenica), intends to undertake exploration activities on Exclusive Prospecting Licence (EPL) 7435 for nuclear fuel minerals, in the Erongo Region.

The proposed project triggers listed activities in terms of the Environmental Management Act, No. 7 of 2007, therefore an environmental clearance certificate is required. As part of the environmental clearance certificate application, an Environmental and Social Impact Assessment (ESIA) has been undertaken to satisfy the requirements of the Environmental Management Act, No. 7 of 2007. This environmental scoping report and Environmental Management Plan (EMP) is herewith submitted to the competent authority as part of the application for the environmental clearance certificate.

The proposed exploration activities on EPL 7435 may include drilling, aerial or remote sensing, ground penetrating radar, and mineral sampling. Non-invasive ground penetrating radar is planned to be undertaken followed by a drilling program. If mineralisation is identified, further exploration methods shall be applied; if not identified, than EPL 7435 shall be rehabilitated and returned to government.

Activities are expected to be conducted over a 3-year period, which is the duration of the exploration licence. However, the period of each phase of the exploration programme may vary and will be refined as geological information becomes available. In the event that exploration is successful, and a commercially viable mineral resource is defined, exploration operations can potentially transcend into mining operations. This phase will involve an application for a Mining Licence and will be assessed in a separate and detailed environmental impact assessment at the appropriate stage.

EPL 7435 falls within the Namib Desert Biome and Central Desert vegetation type, which tends to have grassland covering the gravel plains. Along the natural drainage channels, camel thorn trees (Acacia erioloba) can be found. (Mendelsohn et al., 2002). The EPL 7435 is covered with limited geological features and mainly composed of plains with various surface water features across the site that are likely to have runoff during rainy periods.

The impacts of exploration activities with respect to airborne dust are expected to be limited to vehicular traffic or localized to possible RAB drill sites. There will be some release of exhaust fumes from machinery that will impact the immediate vicinity but will be of short duration. Additionally, there will be associated drilling and machinery noise, which could be a disturbance to immediate neighbours, but this will be of short duration as well.
Through further investigation, it was determined that the effects from noise are considered to be of minor significance, however with additional mitigation, the significance is reduced to low. The additional mitigation measures include:

- Residents shall be provided at least two weeks’ notice of drilling operations within 1km of their property;
- Activities will be minimized to allocated daylight working hours;
- Continual engagement with residents shall be undertaken by the proponent to identify any concerns or issues, and appropriate mitigation and management measures shall be further agreed; and
- Noise suppression measures shall be applied if drilling occurs in locations that may affect residents.

The EPL 7435 is located in the Erongo and Kuiseb Groundwater Basins. These basin shows a generally moderate potential of groundwater (Christelis and Struckmeier, 2001). However, planned activities in the Erongo Region of Namibia may have an impacts on the availability and quality of water resources. It is envisioned that water would be brought to site for this project.

This study concluded that a potential environmental risk, which may require further investigation, is related to the cumulative impacts as a result of visual disturbance, nuisance of noise and the loss of sense of place. Receptors are farm owners and their neighbours. Through further investigation, it was determined that the visual disturbance and temporary qualitative reduction in the sense of place is considered to be of moderate significance, however with additional mitigation, the significance can be reduced to minor. These additional mitigation measures include:

- Positioning of drill equipment in such a way that it is out of sight from human receptors;
- Barriers or fences shall be used if drilling occurs in locations that may affect residents or livestock;
- Residents need to be informed at least two weeks in advance that drilling operations are within 1km of their property; and
- Continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management measures agreed upon.

The overall potential impact of this proposed project is not considered significant as it does not widely exceed recognised levels of acceptable change, does not threaten the integrity of the receptors, and it is not material to the decision-making process. The assessment is considered to be comprehensive and sufficient to identify impacts, and it is concluded that no further assessment is required.
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<tr>
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<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM</td>
<td>Airborne Electromagnetic</td>
</tr>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>AMT</td>
<td>Audio Magneto Telluric</td>
</tr>
<tr>
<td>COVID19</td>
<td>Corona Virus Disease 2019</td>
</tr>
<tr>
<td>DEA</td>
<td>Directorate of Environmental Affairs</td>
</tr>
<tr>
<td>ECC</td>
<td>Environmental Compliance Consultancy</td>
</tr>
<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
</tr>
<tr>
<td>EMA</td>
<td>Environmental Management Act</td>
</tr>
<tr>
<td>EMP</td>
<td>Environmental Management Plan</td>
</tr>
<tr>
<td>EPL</td>
<td>Exclusive Prospecting Licence</td>
</tr>
<tr>
<td>ESIA</td>
<td>Environmental and Social Impact Assessment</td>
</tr>
<tr>
<td>GSN</td>
<td>Geological Survey of Namibia</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>I&amp;AP</td>
<td>Interested and Affected Parties</td>
</tr>
<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
</tr>
<tr>
<td>IHME</td>
<td>Institute for Health Metrics and Evaluation</td>
</tr>
<tr>
<td>JV</td>
<td>Joint Venture</td>
</tr>
<tr>
<td>MAWLR</td>
<td>Ministry of Agriculture and Land Reform</td>
</tr>
<tr>
<td>MEFT</td>
<td>Ministry of Environment, Forestry and Tourism</td>
</tr>
<tr>
<td>MME</td>
<td>Ministry of Mines and Energy</td>
</tr>
<tr>
<td>MPMRC</td>
<td>Minerals (Prospecting and Mining Rights) Committee</td>
</tr>
<tr>
<td>NDP5</td>
<td>National Development Plan Five</td>
</tr>
<tr>
<td>NSA</td>
<td>National Statistics Agency</td>
</tr>
<tr>
<td>RAB</td>
<td>Rotary Air Blast</td>
</tr>
<tr>
<td>RC</td>
<td>Reverse Circulation</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard Operating Procedure</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
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</table>
1 INTRODUCTION

1.1 PROJECT OVERVIEW

Marenica Energy Ltd is an Australian Securities Exchange Listed Company that has various exploration projects in Namibia. Marenica is seeking to further explore uranium mining opportunities and propose to undertake exploration activities on EPL 7435 for nuclear fuel minerals in the Erongo Region. EPL 7435 is located approximately 116.23km east along the C28 road from Swakopmund. The surface area of the EPL extends largely outside the borders of the Namib-Naukluft National Park. The necessary exploration work on the EPL will be operated by Marenica.

The proposed project aims to undertake mineral exploration activities on EPL 7435 for nuclear fuel minerals, which are described in detail throughout the report. Refer to the locality map below (Figure 1).

FIGURE 1 - LOCATION OF THE MARENICA VENTURES EPL 7435
1.2 Scope of Work

Environmental Compliance Consultancy (ECC) has been engaged by the proponent, to undertake the ESIA and an Environmental Management Plan (EMP) in terms of the Environmental Management Act, 2007 and its regulations.

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

An environmental clearance application is submitted to the relevant competent authorities; the Ministry of Mines and Energy (MME) and Ministry of Environment, Forestry and Tourism (MEFT).

ECC has prepared this report. ECC’s terms of reference for the assessment is strictly to address potential effects, whether positive or negative and their relative significance, explore alternatives for technical recommendations and identify appropriate mitigation measures.

This report provides information to the public and stakeholders to aid in the decision-making process for the proposed project. The objectives are to:

- Provide a description of the proposed activity and the site on which the activity is to be undertaken, and the location of the activity on the site;
- Provide a description of the environment that may be affected by the activity;
- Identify the laws and guidelines that have been considered in the assessment and preparation of this report;
- Provide details of the public consultation process;
- Describe the need and desirability of the activity;
- Provide a high level of environmental and social impact assessment on feasible alternatives that were considered; and
- Report the assessment findings, identifying the significance of effects, including cumulative effects.

In addition to the environmental assessment, an EMP (Appendix A) is also required in terms of the Environmental Management Act, No. 7 of 2007. The attached EMP has been developed to provide a management framework for the planning and implementation of exploration activities. The EMP provides exploration standards and arrangements to ensure that the potential environmental and social impacts are mitigated, prevented or minimised.
as far as reasonably practicable, and that statutory requirements and other legal obligations are fulfilled.

1.3 THE PROONENT OF THE PROPOSED PROJECT

The details of the proponent are set out in Table 1 below.

TABLE 1 - PROONENTS DETAILS

<table>
<thead>
<tr>
<th>CONTACT</th>
<th>POSTAL ADDRESS</th>
<th>EMAIL ADDRESS</th>
<th>TELEPHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marenica Ventures (Pty) Ltd</td>
<td>P O Box 90242</td>
<td><a href="mailto:Murray.hill@marenicaenergy.com.au">Murray.hill@marenicaenergy.com.au</a></td>
<td>+61 8 6555 1816 +61 417 00 10 20</td>
</tr>
<tr>
<td>Mr. Murray Hill (Chief Executive Officer)</td>
<td>Klein Windhoek Namibia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.4 ENVIRONMENTAL COMPLIANCE CONSULTANCY

ECC, a Namibian consultancy (registration number Close Corporation 2013/11401), has prepared this scoping report, impact assessment and EMP on behalf of the proponent. ECC operates exclusively in the environmental, social, health and safety fields for clients across Southern Africa, in both the public and private sectors. ECC is independent of the proponent and has no vested or financial interest in the proposed project, except for fair remuneration for professional services rendered.

All compliance and regulatory requirements regarding this EIA report should be forwarded by email or posted to the following address:

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PO BOX 91193 Klein Windhoek, Namibia
Tel: +264 81 669 7608
Email: info@eccenvironmental.com
1.5 ENVIRONMENTAL LEGAL REQUIREMENTS

The Environmental Management Act, No.7 of 2007 stipulates that an environmental clearance certificate is required to undertake listed activities in terms of the Act and its regulations. Listed activities triggered by the proposed project in terms of the Environmental Management Act, No. 7 of 2007 and its regulations are as follows:

**TABLE 2 - LISTED ACTIVITIES TRIGGERED BY THE PROJECT**

<table>
<thead>
<tr>
<th>LISTED ACTIVITY</th>
<th>EIA SCREENING FINDING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MINING AND QUARRYING ACTIVITIES</strong></td>
<td></td>
</tr>
<tr>
<td>3.1 The construction of facilities for any process or activities which requires a licence, right or other forms of authorisation, and the renewal of a licence, right or other forms of authorisation, in terms of the Minerals (Prospecting and Mining Act), No. 33 of 1992.</td>
<td>o The proposed project operates under a licence that permits for the construction of temporal exploration campsites, drill sites and access roads. o Furthermore, this listed activity, infers the provisions of the Minerals Act (Prospecting and Mining) Act 33 of 1992, under different licences as basis upon which certain activities qualify for an EIA. Part X of the Minerals Act (1992) defines prospecting/exploration activities under the lawful ownership of an exploration licence (EPL). An exploration licence excludes any mining activities, but includes activities strictly relating to exploration work. Hence the current project strictly focuses on exploration and not mining. o Soil will be sampled and explored for within the EPL 7435. o The proposed project will explore for nuclear fuel minerals.</td>
</tr>
<tr>
<td>3.2 Other forms of mining or extraction of any natural resources whether regulated by law or not</td>
<td></td>
</tr>
<tr>
<td>3.3 Resource extraction, manipulation, conservation, and related activities</td>
<td></td>
</tr>
<tr>
<td><strong>WATER RESOURCE DEVELOPMENT</strong></td>
<td></td>
</tr>
<tr>
<td>The abstraction of ground or surface water for industrial or commercial purposes</td>
<td>o Due to the drilling of exploration boreholes, the abstraction of groundwater may be possible, although it is intended that water will be obtained from existing boreholes in the proposed project area. Any additional borehole drilled for the intention of abstracting water for use on site should be permitted by the authorities in the form of an abstraction permit</td>
</tr>
</tbody>
</table>
1.6 TERMINOLOGIES APPLIED IN THIS REPORT

This section provides definitions of key terms to enable the reader to form a technical understanding of the type of work associated with exploration programmes.

- **REMOTE SENSING** techniques in mineral exploration enable explorers to evaluate large areas of the earth remotely without having to undertake ground-based exploration operations. Remote sensing may be used to map the geology and structure that potentially localise the ore deposits, or may be used to identify rocks, which have been hydrothermally altered. Remote sensing involves the use of aircraft and satellite-based equipment to obtain the data to record spectral data from the surface of the earth. Remote sensing includes a number of tools and techniques including geographical information systems, radar and sonar. Typically, satellites or a high-flying aircraft are used in the data collection process. It is a useful tool when searching for minerals and can give an indication of where deposits could be located. Remote sensing aids in narrowing down the field survey area and helps to identify target areas that may be considered for more.

- **AIRBORNE GEOPHYSICAL SURVEYS**, using radiometric techniques, are a key aspect in mineral exploration, enabling explorers to probe under ground, mapping geology and structure, including potentially direct identification of mineral deposits. Modern surveys are flown at a low level in a grid pattern, adhering fully to the safety margins prescribed by the Civil Aviation Authority (CAA) of Namibia.

- **GEOLOGICAL MAPPING** of outcrops is used to describe the primary lithology and morphology of rock bodies as well as age relationships between rock units. Mapping is a crucial part of refining subsurface targets, as it provides structural information and can be used to predict the subsurface geology. This will be conducted concurrently with the geochemical sampling process.

- **GEOCHEMICAL SAMPLING** (soil and rock sampling) is a non-invasive technique to determine the existence and extent of mineralization and a potential resource. Geochemical data are used to focus on areas of higher mineral potential as the project advances and help to define drill targets. They assist the company to drill more selectively and thereby increase the chances of intersecting mineralised zones during exploration and reduce the overall footprint of exploration and environmental impact in the area. Geochemical surveys will be the first ground exploration method to be undertaken by the proponent in the licence area.
  
  o **SAMPLING** - Selecting a fractional but representative part of the soil or rock for analysis.

- **GROUND GEOPHYSICAL SURVEYS** including Magnetic or Induced Polarization (IP) techniques, may be undertaken, as appropriate, to collect data that give an
indication of essential rock properties, particularly at depth. They are also used to map the geological structures. IP surveys involve sending electrical currents into the ground, measured via electrodes along linear cut-lines up to 3 km long to provide access to electrical cables. Small holes in the ground (0.2m x 0.2m x 0.3m) will be required for IP electrodes every 25 or 50m along a survey line. The majority of EM techniques are completely non-invasive, and operate by sending electromagnetically induced currents into the ground. EM surveys are conducted along the same linear traverse lines. A variation is the Audio-Magneto Telluric (AMT) technique, in which surveys utilize the same lines and small holes in the ground, but without the application of high voltage electrical currents.

- **RAB DRILLING** (Rotary Air Blast drilling) is an open-hole technique that injects compressed air down the drill pipe and recovers the drill chip fragments, on the outside of the drill stem.

- **DIAMOND DRILLING** entails the use of a diamond-studded drill bit in order to obtain core samples of two cm or more in diameter. Bio-degradable drill additives will be used during diamond core drilling. Soil, rock and drill core samples will be temporarily stored at the site office. Exploration activities are usually undertaken in phases, with periods of no field activity between them, whilst awaiting analytical results, and the integration and interpretation of data to decide on the next phase of exploration.
2 METHODOLOGY AND APPROACH

2.1 PURPOSE AND SCOPE OF THE ASSESSMENT

The aim of this assessment is to determine which impacts are likely to be significant (the main focus of the assessment); scope the available data and any gaps which need to be filled; determine the spatial and temporal scope; and identify the assessment methodology.

Scoping of the ESIA was undertaken by the ESIA team. The scope of the assessment was determined through undertaking a preliminary assessment of the proposed project against the receiving environment obtained through a desk-top review, available site-specific literature, monitoring data and site reports.

ECC’s terms of reference for the assessment is strictly to address potential effects, whether positive or negative and their relative significance, explore alternatives for technical recommendations and identify appropriate mitigation measures.

2.2 THE ASSESSMENT PROCESS AND METHODOLOGY

The EIA methodology applied here has been developed using the International Finance Corporation (IFC) standards and models, in particular Performance Standard 1, ‘Assessment and management of environmental and social risks and impacts’ (International Finance Corporation, 2017) (International Finance Corporation, 2012), which establishes the importance of:

- Integrated assessment to identify the environmental and social impacts, risks, and opportunities of projects;
- Effective community engagement through disclosure of project-related information and consultation with local communities on matters that directly affect them; and
- The client’s management of environmental and social performance throughout the life of the project

Furthermore, the Namibian Draft Procedures and Guidance for ESIA and EMP (Republic of Namibia, 2008) as well as the international and national best practice; and over 25 years of combined EIA experience, were also drawn upon in the assessment process.

This impact assessment is a formal process in which the potential effects of the project on the biophysical, social and economic environments are identified, assessed and reported, so that the significance of potential impacts can be taken into account when considering whether to grant approval, consent or support for the proposed project.
FIGURE 2 - ECC ESIA METHOD
2.3 Screening of the Project

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

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

2.4 Scoping of the Environmental Assessment

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

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

Subsequently, scoping of the ESIA was undertaken by the EIA team. The scope of the assessment was determined through undertaking a preliminary assessment of the proposed project against the receiving environment obtained through a high-level desktop review. Feedback from consultation with the client and stakeholders also informed this process.

The following environmental and social topics and subtopics were scoped into the assessment, as there was potential for significant impacts to occur:

**Socio-economic Environment**
- Limited goods and services procurement within the local economy.

**Biophysical Environment**
- Dust emissions
- Soil and geology
- Terrestrial ecology
- Terrestrial biodiversity (including fauna and flora)
- Groundwater (potential indirect impact). Water management suggestions are contained in the EMP (Appendix A).

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

- Heritage: A desktop review of the general EPL area has not revealed any site of interest with a heritage connotation to it. The EMP does however contain a Standard Operating Procedure (SOP) called a “chance-find” procedure to be utilised in the unlikely event of a possible archaeological find.

2.5 BASELINE STUDIES

Baseline studies are undertaken as part of the scoping stage, which involves collecting all pertinent information from the current status of the receiving environment. This provides a baseline against which changes that occur as a result of the proposed project can be measured.

For the proposed project, baseline information was obtained through a desktop study, focussing on environmental receptors that could be affected by the proposed project, verified through site-specific information. The baseline information is covered in Section 5.

A robust baseline is required in order to provide a reference point against which any future changes associated with a project can be assessed, and it allows for suitable mitigation and monitoring actions to be identified.

The existing environment and social baseline for the proposed project were collected through various methods:
- Desktop studies;
- Consultation with stakeholders; and
- Engagement with Interested and Affected Parties (I&APs). See Appendix C.

2.6 IMPACT PREDICATION AND EVALUATION

Impact prediction and evaluation involves predicting the possible changes to the environment as a result of the development/project. The recognized methodology was applied to determine the magnitude of impact and whether or not the impact was considered significant and thus warrant further investigation. The impact prediction and
evaluation methodology used is presented in Section 6 of this report. The findings of the assessment are presented in Section 7.

2.7 ESIA CONSULTATION

Public participation and consultation are requirements stipulated in Section 21 of the Environmental Management Act, No. 7 of 2007 and associated regulations for a project that needs an environmental clearance certificate. Consultation is a compulsory and critical component in the ESIA process in achieving transparent decision-making and can provide many benefits.

The objectives of the stakeholder engagement process are to:
- Provide information on the project to I&APs: introduce the overall concept and plan;
- Clarify responsibility and regulating authorities;
- Listen to and understand community issues, concerns and questions;
- Explain the process of the ESIA and timeframes involved; and
- Establish a platform for ongoing consultation.

2.8 INTERESTED AND AFFECTED PARTIES

EPL 7435 overlaps with six farms and one Main road, the C28 and the District road D1985 which run through the EPL in an east-west and north to south directions respectively (See figure 3). This road provide access to the farms that overlap with and border the EPL.

All owners of the farms that overlap or border EPL 7435 were identified as I&APs, as well as the relevant authoritative bodies. Other I&APs will be identified through invitations such as the newspaper advertisements and site notices.
2.9 SITE NOTICES

A site notice ensures neighbouring properties and stakeholders are made aware of a proposed project. A site notice was set up along the C28 road onsite of the EPL. Evidence of the site notice placement is illustrated in Appendix C.

2.10 PUBLIC MEETING

In terms of Section 22 of the Environmental Management Act, No. 7 of 2007 and its regulations, for the purpose of registering I&APs. A public meeting is not a requirement during the public consultation process for all proposed projects. As a result from the public consultation feedback and comments, a public meeting was not deemed necessary for this project either.

2.11 NEWSPAPER ADVERTISEMENTS

Notices regarding the proposed project and associated activities were circulated in three newspapers namely the ‘Republikein’, Allgemeine Zeitung’ and the Namibian ‘Sun” on the 10th and 17th of February 2021. The purpose of this was to commence the consultation
process and enable I&APs to register an interest with the project. The adverts can be found in Appendix C.1.

2.12 **NON-TECHNICAL SUMMARY**

The Non-Technical Summary (NTS) presents a high-level description of the proposed project; sets out the ESIA process and when and how consultation is undertaken; and provides contact details for further project-specific inquiries to all registered I&APs. The NTS was distributed to all registered I&APs and the NTS can be found in Appendix B.

2.13 **SUMMARY OF ISSUES RAISED**

The initial public participation phase involved the notifications of the project through media such as the newspaper adverts, direct mail sent to identified I&APs and the display of site notices delivered very few interactive communications from the public.

Farmers raised concerns regarding potential impacts of game being scared from airborne survey equipment which could result in game running away from their farm and into National Park land. This issue is addressed in the impact assessment.

2.14 **DRAFT ESIA AND EMP**

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

The ESIA report documents the findings of the assessment process, provides stakeholders with the opportunity to comment as part of continued consultation and forms part of the environmental clearance application. The EMP provides measures to manage the environmental and social impacts of the proposed project and outlines specific roles and responsibilities to fulfil the plan.

This ESIA report focuses on the significant impacts that may arise from the proposed project as described in Step 4 (Figure 2). These impacts are discussed in Chapter 6.

This ESIA draft report is open to stakeholders and I&APs for consultation for a period of 10 days (31/03/2021 – 09/04/2021), extending the mandatory requirement of 7 days set out in the Environmental Management Act, No. & of 2007 and its regulations, including the Environmental Impact Assessment Regulations, No. 30 of 2012.
The aim of this stage is to ensure all stakeholders and I&APs have the opportunity to provide final comments on the assessment process and findings and register their concerns.

2.15 FINAL ESIA AND EMP

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

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

2.16 AUTHORITY ASSESSMENT AND DECISION MAKING

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

2.17 MONITORING AND AUDITING

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

This chapter outlines the regulatory framework applicable to the proposed project. Table 3 provides a list of applicable legislation and the relevance to the project. An environmental clearance is required for any activity listed as per Government Notice No 29 of 2012 of the EMA.

3.1 NATIONAL LEGISLATION

TABLE 3 - LEGAL FRAMEWORK

<table>
<thead>
<tr>
<th>NATIONAL REGULATORY REGIME</th>
<th>SUMMARY</th>
<th>APPLICABILITY TO THE PROJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constitution of the Republic of Namibia of 1990</td>
<td>The Constitution of the Republic of Namibia, 1990 clearly defines the country’s position in relation to sustainable development and environmental management. The constitution refers that the state shall actively promote and maintain the welfare of the people by adopting policies aimed at the following: “Maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present, and future; in particular, the government shall provide measures against the dumping or recycling of foreign nuclear and toxic waste on Namibian territory.”</td>
<td>The proponent is committed to engage the local community for the proposed project by providing local jobs as well as, exploring ways of finding rich resources to that could contribute to the mining sector in Namibia.</td>
</tr>
<tr>
<td>Minerals (Prospecting and Mining) Act, No. 33 of 1992</td>
<td>Provides for the reconnaissance, prospecting and mining for, and disposal of, and the exercise of control, minerals in Namibia. Section 50 (i) requires “an environmental impact assessment indicating the extent of any pollution of the environment before any prospecting operations or mining operations are being carried out and an estimate of any pollution, if any, likely to be caused by such prospecting operations or mining operations”</td>
<td>The proposed activity is prospecting for minerals; hence it requires an ESIA to be carried out as it triggers listed activities in the Environmental Management Act and its regulations. This report presents the findings of the EIA. Works shall not commence until all conditions in the Act are met, which includes an agreement with the landowners and conditions of compensation have been agreed.</td>
</tr>
<tr>
<td>NATIONAL REGULATORY REGIME</td>
<td>SUMMARY</td>
<td>APPLICABILITY TO THE PROJECT</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Mineral Licence Act</td>
<td>mineral licence, it shall be a term and condition of any mineral licence that the holder of such mineral licence shall: Exercise any right granted to him or her in terms of the provisions of this Act reasonably and in such manner that the rights and interests of the owner of any land to which such licence relates are not adversely affected, except to the extent to which such owner is compensated. Section 52 sets out that the holder of a mineral licence shall not exercise any rights conferred upon such holder by this Act or under any terms and conditions of such mineral licence (a) In, on or under any private land until such time as such holder. (i) Has entered into an agreement in writing with the owner of such land containing terms and conditions relating to the payment of compensation, or the owner of such land has in writing waived any right to such compensation and has submitted a copy of such agreement or waiver to the Commissioner.</td>
<td>The project shall be compliant with Section 76. With regards to records, maps, plans and financial statements, information, reports, and returns submitted. As the proponent will need to access privately owned land the proponent will ensure Sections 50 and 52 are complied with.</td>
</tr>
</tbody>
</table>

Environmental Management Act, (No. 7 of 2007) and its regulations, including the Environmental Impact Assessment Regulation, 2007 (No. 30 of 2012) The Act aims to promote sustainable management of the environment and the use of natural resources by establishing principles for decision-making on matters affecting the environment. It sets the principles of environmental management as well as the functions and powers of the minister. The Act requires certain activities to obtain an environmental clearance certificate prior to project development. The Act states an EIA may be undertaken and submitted as part of the environmental clearance certificate application. The MEFT is responsible for the protection and management of Namibia’s natural environment. The Department of Environmental Affairs under This environmental scoping report (and EMP) documents the findings of the environmental assessment undertaken for the proposed project, which will form part of the environmental clearance application. The assessment and report have been undertaken in line with the requirements under the Act and associated regulations. |
<table>
<thead>
<tr>
<th>NATIONAL REGULATORY REGIME</th>
<th>SUMMARY</th>
<th>APPLICABILITY TO THE PROJECT</th>
</tr>
</thead>
</table>
| Water Act, No. 54 of 1956  | Although the Water Resources Management Act, no 11 of 2013 has been billed, but not promulgated, it cannot be enacted as the regulations have not been passed – so the Water Act 54 of 1956 is still in effect. This act provides for “the control, conservation and use of water for domestic, agricultural, urban and industrial purposes; to make provision for the control, in certain respect and for the control of certain activities on or in water in certain areas”.

The Department of Water Affairs within the Ministry of Agriculture Water and Land Reform (MAWLR) is responsible for the administration of the act.

The Minister may issue a permit in terms of the regulations 5 and 9 of the government notice R1278 of 23 July 1971 as promulgated under section 30 (2) of the Water Act no. 54 of 1956, as amended. | The Act stipulates obligations to prevent pollution of water. Should wastewater be discharged, a permit is required. The EMP sets out measures to avoid polluting the water environment.

Measures to minimise potential groundwater and surface water pollution are contained in the EMP.

Abstraction of water from boreholes requires an abstraction permit. Abstraction rates need to be measured and reported to the authorities in accordance with the requirements of this legislation. In addition, annual reporting on the environmental impacts of water abstraction is recommendable.

Should the project require drilling and abstraction of water from underground sources, an application should be submitted to the authorities. |
| Soil Conservation Act, No. 76 of 1969) and the Soil Conservation Amendment Act, No. 38 of 1971 | Makes provision for the prevention and control of soil erosion and the protection, improvement and the conservation, improvement and manner of use of the soil and vegetation. | This will be taken into consideration during the intention of the works to be undertaken within EPL 7435 site. Measures in the EMP set out methods to avoid soil erosion. |
| The Forestry Act, No. 12 of 2001 as amended by the Forest Amendment Act, No. 13 of | 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 | The planned project activities will include minimal vegetation clearing to support exploration activities. The necessary permit should be obtained from the MEFT, where the application |
TABLE 4 - NATIONAL POLICIES

<table>
<thead>
<tr>
<th>NATIONAL REGULATORY REGIME</th>
<th>SUMMARY</th>
<th>APPLICABILITY TO THE PROJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vision 2030</strong></td>
<td>Vision 2030 sets out the nation’s development programmes and strategies to achieve its national objectives. It sets out eight themes to realise the country’s long-term vision. Vision 2030 states that the overall goal is to improve the quality of life of the Namibian people to a level in line with the developed world.</td>
<td>The planned project shall meet the objectives of Vision 2030 and shall contribute to the overall development of the country through continued employment opportunities.</td>
</tr>
<tr>
<td><strong>The Fifth National Development Plan (NDP5)</strong></td>
<td>NDP5 is the fifth in the series of seven five-year national development plans that outline the objectives and aspiration of Namibia’s long-term vision as expressed in Vision 2030. NDP5 is structured on the pillars of economic progression,</td>
<td>The planned project supports meeting the objectives of NDP5 by creating opportunities for employment to the nearby community and the Namibian</td>
</tr>
<tr>
<td>NATIONAL REGULATORY REGIME</td>
<td>SUMMARY</td>
<td>APPLICABILITY TO THE PROJECT</td>
</tr>
<tr>
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<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>social transformation, environmental sustainability and good governance. Under the social transformation pillar is the goal of improved education.</td>
<td>The objectives of the Minerals Policy are in line with the objectives of the NDP5, i.e., reduction of poverty, employment creation, and economic empowerment in Namibia. The proposed project conforms to the policy, which has been considered through the ESIA process and the production of this report.</td>
</tr>
<tr>
<td>Minerals Policy</td>
<td>The Minerals Policy was adopted in 2002 and sets guiding principles and direction for the development of the Namibian mining sector while communicating the values of the Namibian people. It sets out to achieve several objectives in line with the sustainable development of Namibia’s natural resources. The policy strives to create an enabling environment for local and foreign investments in the mining sector and seeks to maximise the benefits for the Namibian people from the mining sector while encouraging local participation, amongst others. The objectives of the Minerals Policy are in line with the objectives of the Fifth National Development Plan that include reduction of poverty, employment creation and economic empowerment in Namibia.</td>
<td></td>
</tr>
<tr>
<td>Labour Act, No. 11 of 2007</td>
<td>The Labour Act, No. 11 of 2007 (Regulations relating to the Occupational Health &amp; Safety provisions of Employees at Work promulgated in terms of Section 101 of the Labour Act, No. 6 of 1992 - GN156, GG 1617 of 1 August 1997)</td>
<td>The proposed project will comply with stringent health and safety policies, including the compulsory use of specific PPE in designated areas to ensure adequate protection against health and safety risks. Proper storage and labelling of hazardous substances are required. The project will ensure employees in charge of and working with hazardous substances need to be aware of the specific hazardous substances in order not to compromise worker and environmental safety.</td>
</tr>
</tbody>
</table>
3.3 PERMITS AND LICENCES

3.3.1 EXCLUSIVE PROSPECTING LICENCES

The EPL 7435 was granted on the 08th of October 2020 and expires on the 07th of October 2023. In terms of the Minerals (Prospecting and Mining) Act, No. 33 of 1992, an EPL may be renewed, however, it may only be extended twice for two-year periods if demonstrable progress is shown. Renewals beyond seven years require special approvals from the Minister (MME, 2018).

Such renewals are subject to a reduction in the size of the EPL. When a company applies for renewal of an EPL, the application must be lodged 90 days prior to the expiry date of the EPL or, with good reason, no later than the expiry date (MET & MME, 2018).

If renewal is applied for, the MME must review the renewal application and make any comments or recommendations for consideration by the Minerals (Prospecting and Mining Rights) Committee (MPMRC). Amendments and revisions may be required for the ESIA and EMP. Due consideration must be given when renewing the licence to ascertain whether there is justification to renew the licence. Once an EPL expires and a new EPL is issued, even if it is to the previous holder, the full screening process must be followed with a full EIA process, before operations may commence (MET & MME, 2018).

The permits and licence that may be relevant to the proposed projects are outlined in Table 5.

**TABLE 5 - NATIONAL POLICIES**

<table>
<thead>
<tr>
<th>PERMIT AND LICENCES</th>
<th>RELEVANT AUTHORITY</th>
<th>VALIDITY/DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER ABSTRACTION PERMITS</td>
<td>Ministry of Agriculture, Water and Land Reform</td>
<td>Permit dependent</td>
</tr>
<tr>
<td>EXCLUSIVE PROSPECTING LICENCE</td>
<td>Ministry of Mines and Energy - Windhoek</td>
<td>3 years</td>
</tr>
<tr>
<td>NOTICE OF INTENTION TO DRILL</td>
<td>Ministry of Mines and Energy - Windhoek</td>
<td>To be submitted prior to drilling</td>
</tr>
</tbody>
</table>

3.4 WORLD BANK STANDARDS

The International Finance Corporation (IFC) is a member of the World Bank Group and is the largest global development institution focusing on the private sector in developing countries. Its standards have become a global benchmark for environmental and social performance. They form the basis for the Equator Principles (IFC, 2013), a voluntary
environmental and social risk-management framework used by 77 financial institutions worldwide. The Equator Principles are a framework and set of guidelines for evaluating social and environmental risks in project finance activities and apply to all new projects with a total capital cost of US$10 million or more, no matter what industry sectors, without geographic requirement. The Equator Principles are not applicable to this specific project.
4 PROJECT DESCRIPTION

4.1 NEED FOR THE PROJECT

Namibia is relatively rich in a variety of minerals, and mining has always been a critical sector of the Namibian economy. The sector contributes significantly to the country’s Gross Domestic Product (GDP), through taxation, royalties, fees and equities as well as export revenues. For this reason, exploration activities are encouraged in Namibia and the vision of the Minerals Policy being to “further attract investment and enable the private sector to take the lead in exploration, mining, mineral beneficiation and marketing” supports the development.

The proposed project is in line with this vision and has the potential to create short term and limited employment in the local communities, namely Swakopmund, Walvis Bay and the marginalized Topnaar people (IAonin) and to contribute to the national income. In the event that exploration activities are successful, and a resource with commercially viable mineral concentrations can be defined, the exploration operations can potentially transcend into mining operations which can result in multiple socio-economic benefits to the region and the country at large.

Uranium is used in the nuclear industry to produce electricity. Nuclear is the world’s second largest source of low carbon power (>30% of the total in 2018). Namibia is one of the countries which has uranium deposits and has three significant uranium mines capable of providing 10% of the world uranium output. Uranium was discovered in the Namib Desert in 1928 and intensive exploration commenced in the late 1950s.

4.2 EXPLORATION

It is the process of sampling/collecting fragments of the earth’s layers for testing of each sample’s mineral composition, grade, and spatial dispersion to acquire an informed perspective of the target area’s ore potential. Deeper probing is achieved through geophysical surveys.

4.3 EXPLORATION METHODOLOGY

Exploration work will be entirely conducted by contracted geological, geophysical consultants and in phase three and four onwards drilling consultants and companies. The below schedule of activities (Table 6) is presented for the project.
### TABLE 6 - LIST OF ACTIVITIES PLANNED PER PHASE

<table>
<thead>
<tr>
<th>PHASE</th>
<th>DATE</th>
<th>ACTIVITY DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1:</td>
<td>Field inspection</td>
<td>Non-invasive Ground Penetrating Radar (GPR) will be done in the first three months</td>
</tr>
<tr>
<td>2021</td>
<td>commencement date unknown, desktop work commenced 2020:</td>
<td></td>
</tr>
<tr>
<td>Phase 2:</td>
<td>Actual commencement date unknown: Early 2022.</td>
<td>RC drilling will then commence soon after for another three month period. Further planning will take place after the results of drilling has been obtained. If results are favourable subsequent exploration will continue. However, if not, the sites will be rehabilitated and vacated.</td>
</tr>
<tr>
<td>2022</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 4.4 ALTERNATIVES CONSIDERED

The proposed project has been subject to a process of design evolution, informed by both consultation and an iterative environmental assessment. In terms of the Environmental Management Act, No. 7 of 2007 and its regulations, alternatives considered should be analysed and presented in the scoping assessment and EIA report. This requirement ensures that during the design evolution and decision-making process, potential environmental impacts, costs, and technical feasibility have been considered, which leads to the best option(s) being identified.

Exploration activities range from extremely low impact exploration such as coarse line sampling and geophysical surveying to more invasive activities such as trenching or extensive close spaced drilling. The initial exploration results will define the need, if at all, of the more invasive activities.

Several uranium deposits occur in Namibia and are grouped into three basic rock types: a) occurrences in and associated with plutonic rocks, b) pedogenic occurrences and c) sedimentary occurrences. An overlap exists between the pedogenic and the other main deposit types. Uranium occurrences in and associated with plutonic rocks comprise both potentially economic deposits and source rocks for uranium deposits in pedogenic and sedimentary sequences. These deposits are confined mainly to the western portion of the Damara Orogen (Schreuder, 1985). Therefore, there is limited areas to explore in Namibia. An exploration program in the 1970s undertaken by general mining indicated high prospectively for uranium mineralisation in the EPL. Consequently, alternative sites were considered during this early exploration program, however, the potential for mineralisation was not as high as that of EPL 7435. The Environmental assessment has therefore taken a
worst-case scenario, which includes a review of all likely exploration activities, thus no other technological alternatives are available for consideration at this stage.

Once the exploration programme is further defined, the best available option for methods shall be identified to ensure the impacts on the environment and society are minimised. The following activities are ongoing or proposed:

- Interpretation of Govt aeromagnetic and radiometric data (planned);
- Satellite image interpretation (ongoing);
- Acquisition of low-level airborne electromagnetic data (coarse line spacing yet to be determined, planned);
- Initial field visits to exposed geology both in isolated outcrop and in streams (planned);
- Stream sediment and rock-chip sampling for geochemistry (planned); and
- Detailed geochemical sampling and ground geophysical follow-up of specific interpreted target localities (planned).

Once the exploration programme is further defined with new information generated from the initial geophysical surveying and data analysis activities, the following more invasive techniques will be employed at strategic locations informed by new data.

- RAB or RC drilling as the next stage of the programme, followed by
- Diamond core drilling.

The most suitable options and methods shall be identified to ensure the impacts on the environment and society from these activities are minimised.

4.5 NO-GO ALTERNATIVE

Should exploration activities within EPL 7435 not take place, the anticipated environmental impacts from exploration activities would not occur, however, the social and economic benefits associated with project would also not be materialized.

There would not be an opportunity to define resources within the project area, this would be a missed opportunity for geological mapping and data collection that would add to regional knowledge of Namibia’s mineral wealth and, if found to be viable for mining, could benefit the Namibian economy.

4.6 EQUIPMENT REQUIREMENTS

In the early exploration phase (1st and possible 2nd year) contractor vehicles and equipment will comprise:

- 4x4 vehicles for personnel and field equipment;
- Field equipment including tents, mobile toilets and ablution facilities, spades, axes, soil sampling equipment such as sieves, sample bags, surveying apparatus;
- Portable or semi-portable vehicle-mounted geophysical equipment such as magnetometers or Induced Polarization apparatus (all passive and non-invasive).
- In the ensuing phases drilling is envisioned. The equipment requirements would therefore be an RAB/ Aircore Drill rig initially then followed by diamond core drilling. This is anticipated to be a specific provision within tender documentation.

4.7 Power supply

The individual contractors will be responsible to supply their own energy needs throughout the duration of their stay within the field camps. The proponent prefers the use of solar panels and small-scale generators.

4.8 Water supply

Water will be required for various uses including human consumption and exploration activities. Water demand per day for the exploration project is broken down into two usage categories. These are:
- Water for domestic use within field camps: 5m³ per day; and
- Water for exploration activities (drilling): 20m³.

Water can be sourced from two sources. These are:

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

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

4.9 Workers accommodation

Seven possible job opportunities are foreseen during the exploration phase and workers will be sourced from the local towns of (Swakopmund and Walvis bay) and surrounding villages. The workers will be deployed at various stages of exploration including soil sampling, geological mapping, geophysical surveys and drilling operations.
It is envisaged that for most of the exploration programme workers will reside in a dedicated campsite within the EPL. The proponent will provide transport. However, during the latter part of the prospecting (drilling) workers may be required to stay in field camps away from any farmhouses. It is anticipated that the contractor will be completely self-sufficient with regard to power supply and waste management.

The proponent shall provide suitable living facilities during this period. Furthermore, the camping equipment shall include tents and a portable kitchen.

4.10 Waste Management

Solid and effluent waste will be generated by the project, whilst exploration work throughout the phases are ongoing. Waste produced on site will include sewerage and solid waste such as packaging. Wastewater (e.g. water with drill additives) used during drilling will be recycled where possible, and effluent contained and allowed to evaporate after use. The drill-sludge will be disposed of at the Walvis Bay municipal waste disposal site. In case of the provision of mobile toilets to be used on site, sewerage generated shall be managed by the toilet contractor. The proponent shall ensure waste transport certificates are provided by the toilet contractor for sewerage waste removed from site. No toxic waste will be discharged into the environment.

4.11 Wastewater Effluent

Wastewater will be diverted into a lined sump to evaporate. The remaining solid residue will be buried in the soil if not toxic. Hazardous waste (hydrocarbon contaminated soil, etc.) will be disposed of at the Walvis bay municipal landfill site.

4.12 Rehabilitation

Once exploration activities are completed the areas shall be rehabilitated to a condition as close to the original state as far as possible. Rehabilitation shall be determined during the exploration programme and shall be agreed with the landowners and authorities as implied by legislation (discussed in Section 3). Before and after photographs will be used to monitor rehabilitation success. The proponent has committed to restoring any historic exploration disturbance on the site if identified.
5 BASELINE / CURRENT BIOPHYSICAL ENVIRONMENT

This section provides an overview of the existing biophysical environment through the analysis of the baseline data regarding the existing natural and socio-economic environment. Desktop studies on the national database are undertaken to get information of the current status of the receiving environment. This provides a baseline where changes that occur as a result of the proposed project can be measured.

5.1 CLIMATE

The surrounding areas of Swakopmund climate is characterised by mild summers and cool winters with the mean temperatures ranging between 10°C and 24°C. Fog is the most common precipitation within the project site, with over 100 days of fog events per year (Goudie A., et al 2015).

Wind can occur any time of the day, with the predominant winds from the W – SSW, NW – NNE and NE – E with some seasonal variations in wind speed and direction (Mendelsohn et al., 2002). Most fog is prevalent during mornings and evenings and dissipates as the day heats up. This is an important determining factor for outdoor activities during daytime hours within the town.

Mild temperatures are predominant at the coast, averaging less than 20°C; the hottest month is February, and the coldest month is August (Namibia’s Coast, 2012). The prevailing wind recorded in Swakopmund is from the southwest and onshore with an average speed of 7.4 km/h (Figure 4). The occurrence of this wind pattern is caused by the South Atlantic anticyclone high pressure cell that descends to the surface of the Atlantic Ocean with a high degree of wind strength released in an anti-clockwise motion in a northerly direction and powers the Benguela Current up the Namibian coastline.

EPL 7435 is located in a part of Namibia, within the Namib Desert climatic zone. The area has nearly no rainfall throughout the year, which receives between 50 to 150 mm of rain per year, with a variation coefficient of 30 - 40%. Rainfall events are limited to the summer months, mainly between December and March. Potential evaporation is between 1,960 and 2,100 mm per year, meaning an average water deficit of between 1,900 and 2,100 mm per year. Relative humidity is low, rarely more than 35% in winter but may reach 85% in summer before or after thunderstorm build-up. Maximum temperatures average around 28 - 30°C, mainly recorded during the afternoons between November and January, while minimum temperatures are around 8 - 10°C and are normally recorded during nights in June and July. Frost during the winter months is common (Mendelsohn et al., 2002).
Namibia can be divided into two broad geological provinces, one covering the western parts and the other in the east. The western parts consist of a variety of geological formations of different ages and composition and formed under very diverse environmental conditions – some were formed in the depths of primeval oceans, others as a result of the movement of the earth’s crust or because of collisions or volcanic eruptions. Most of these formations are exposed in the west as rugged landscapes of mountains, hills, valleys and plains with sparse vegetation, providing an interesting insight into Namibia’s geological past. In eastern Namibia, the formations are covered with deposits of a much more recent past (Mendelsohn et al., 2002). The deposits are loose, aeolian of origin, sandy and unconsolidated. On the surface the east of Namibia appears monotonous and uniform, covered with dense vegetation in the north and decreasing to the south. Most of the knowledge about these sediments has been derived from water abstraction boreholes, and rare outcrops and underlying formations exposed along drainage lines and around isolated pans.

The regional geology of this area consists of basin-and-dome tectonic features, where massive marbles of the Karibib Formation form three domal structures, while steeply-dipping biotite schists (Kuiseb Formation) form the basins. Four uranium anomalies are
associated with the domal structures and this indicates that these structures have extended a considerable influence over deposition of secondary uranium minerals (Schreuder, 1985).

Swakopmund is located on Cenozoic fluvio-marine and alluvial deposits (soils) nestled on top of the Precambrian Damara sequence rocks and intruded by Karoo-age dolerite dykes (Bulley, 1986). Formations of the Damara Supergroup, between 850 and 600 million years old, cover a large part of the central and western parts of Namibia north of the Tropic of Capricorn. South of the Damara Supergroup is the Namaqua Metamorphic Complex (between 1,400 and 1,050 million years old), the Nama Group (538 – 547 million years old) and the Karoo Supergroup (300 – 180 million years old). To the east the much younger Kalahari deposits (<70 million years old) dominate, overlaying most of the older formations (Mendelsohn et al., 2002).

The EPL 7435 stretches over an area that is predominately made up of the both Damara Granite and Khomas Group rock type. The different geological group formations associated with the EPL are illustrated in Figure 5.
FIGURE 5 - REGIONAL GEOLOGICAL SETTING OF EPL 7435
5.3 TOPOGRAPHY AND SOILS

The topography of the EPL is flat, varying between 2,312 and 454m above mean sea level. The surface geology appears to be uniform, and the entire landscape has a gentle gradient dipping towards the north to south (Figure 6). The general landscape of the EPL is flat. Linear dunes become also more prominent towards the south, generally oriented in a NE-SW direction. Unlike the fossil features, the Namib dunes migrate. The Namib dunes are mainly stabilized by permanent vegetation.

![Elevation Profile Graph](image)

**FIGURE 6 - ELEVATION PROFILE FOR EPL 7435**

EPL 7435 is largely covered by Calcisols soils (Figure 7). The characteristics of this dominant soil type are soils with a solid layer at a shallow depth that remains hard even when wet. Soils have accumulations of calcium sulphate, which are restricted to the very dry areas of the central Namib. The soil generally has very low levels of fertility, so only the hardiest of plants will grow in them (Mendelsohn et al., 2002).

The soils of the Namib Desert are formed by various processes, both mechanical and chemical. Soil formation is a slow and weak process on the plains of the Namib, and usually forms a crust that provides a stabilising effect that is very sensitive to any form of disturbance.
5.4 HYDROLOGY

Groundwater conditions in Swakopmund are relatively stable due to the low rainfall groundwater is shallow and the water table can be intercepted between 1-5m below the surface. The largest part of EPL 7435 is located in the Erongo Groundwater Basin and the south eastern part is located within the Kuiseb Groundwater Basin (Figure 8). These basins show a generally moderate potential of groundwater (Christelis and Struckmeier, 2001). Farms located within and nearby EPL 7435 obtain water from borehole abstraction.

However, the current and planned mining related activities in the Swakop River Basin and other areas in the Erongo Region of Namibia may have impacts on the availability and quality of water resources. The Erongo region in the central western part of Namibia receives 350 to less than 50 mm of rainfall per year, most of the mining areas are located in the arid part with rainfall of less than 150 mm per year. Groundwater resources in the crystalline basement are scarce and mostly constrained to shallow alluvial aquifers (Kuells CJ, 2016).
Recorded boreholes of relevance to EPL 7435 are indicated in Figure 8. Should the project require the drilling and abstraction of water from an additional borehole, an application must be submitted to the authorities.

5.5 VEGETATION

EPL 7435 is covered with the central western escarpment and inselbergs vegetation (Figure 9). The area has unique vegetation and wildlife species including reptiles and avifauna, many of which are endemic to the Namib Desert. EPL 7435 lies within the Namib Desert Biome and Central Desert vegetation type, which tends to have grassland occupying the gravel plains. The grass cover is very sparse but nevertheless dominates the little vegetation that grows on the gravel plains. The majority of grasses are annuals including some perennial Stipagrostis species and coverage is sparse. The plant diversity of the areas is low (less than 50 species). EPL 7435 has a great diversity of grasses and shrubs, however still sparse, with no visible outcrops for lichen.

The most important environmental variable affecting the vegetation in this part of the country is rain and to a lesser extent frost, but micro-habitat conditions and rangeland management practices determine bush density and grass composition. Grazing resources
are made up of a wide variety of grass species, which vary widely in palatability and abundance. Bush encroachment is noticeable, mainly on farmland exposed to continuous periods of selective grazing by livestock. Moreover, the densification of bush has led to a decreased carrying capacity on some farms in the area where EPL 7435 is located.

FIGURE 9 - REGIONAL VEGETATION MAP OF EPL 7435

5.6 FAUNA SPECIES

The surrounding area of the EPL has between 141 – 170 bird species, which is of medium diversity in comparison to the rest of Namibia, which has a total of 658 recorded bird species. The diversity of mammals and reptiles in the area is very low and low respectively, compared to the rest of Namibia, with 16 – 30 species of mammals and between 41 and 50 reptiles (Mendelsohn et al., 2003).

5.7 SOCIO-ECONOMIC ENVIRONMENT

Namibia’s GDP is recorded at 14 billion US Dollars as at 2019 (Plecher, 2020). The development of the services sector, which directly includes tourism-related products and services have created a significant positive impact on domestic and national economic growth levels; employment; and local and regional development. Examples of this are the
continued development of small and medium sized tourism-based accommodation developments throughout the country as well as the large-scale tourism developments and eco-tourism with a strong focus on wildlife marketing.

EPL 7435 is located within the Erongo Region. It is named after Mount Erongo, a well-known landmark in Namibia and in this area. Erongo contains the municipalities of Walvis Bay, Swakopmund, Henties Bay and Omaruru, as well as the towns Arandis, Karibib and Usakos. All the main centres within this region are connected by paved roads, the capital is Swakopmund. The region, is well developed with its link to the coast of Namibia.

5.7.1 Demography

Namibia is one of the least densely populated countries in the world, with a population of 2.5 million. Life expectancy is 65 years and expected years at schooling is 11.7 (National Planning Commission, 2017). Namibia’s population is expected to increase from an estimated 2.11 million in 2011 to 3.44 million by 2041 (63%). It is predicted that urbanisation will continue, with an increase from 43% population in urban areas in 2011 to 67% in 2041. The populations of Khomas and Erongo are projected to increase the most with over a third of Namibia’s population to live in these two regions (Namibia Statistics Agency, 2011). In Erongo region, Swakopmund and Walvis Bay are the main towns expected to have an increase in urbanisation, mostly due to economic activities resulting from mining, tourism and the fishing industry.

In the 2011 Census, the population of the Erongo Region was 150 809, with a growth rate of 28.6% since 2001. The population of Namibia has been growing steadily; the population growth rate between 2001 and 2011 (the two census) was 1.4%, with urban areas growing quicker than rural areas. The highest growth rate in Namibia was recorded in the Erongo region (3.4%). This was mainly influenced by in-migration; more than 40% of residents in these regions were born elsewhere. Situated in the central Namib Desert, Swakopmund is a fourth-largest populated town in Namibia and the capital of the Erongo region administrative district with 44 725 inhabitants (Namibia Statistics Agency, 2011).

5.7.2 Governance

Namibia has achieved the level of ‘medium human development’ and ranks 125th on the Human Development Index out of 188 countries (National Planning Commission, 2017). Namibia is divided in 14 regions, subdivided by 121 constituencies. Each region has a regional council, elected during regional elections per constituency. Towns are governed through local authorities, in the form of municipalities.
The Namibian constitution provides for the establishment of Local authorities by laws under the Municipal Ordinance, 1963 (Ordinance 13 of 1963) and the Local Authorities Act, No. 23 of 1992. As such the Local Authorities have the power to pass by-laws for the effective administration of their Municipalities and Communities.

In this case, the Namibia Inter-censal Demographic Survey reported that for Erongo Region with a growth rate of 3.8, there was a noticeable movement of people from rural to urban areas where the population in urban areas increased from 43 percent in 2011 to 48 percent in 2016.

5.7.3  Employment

The rate of unemployment is estimated at 33.4% for Namibia, using the broad definition of unemployment. More than 60% of the population is over 15 years of age and about one-third of the total population can be regarded as part of the labour force. The unemployment rate in rural and urban areas is almost the same – 33.4% in urban areas and 33.5% in rural areas. The highest unemployment rates are found amongst persons with education levels lower that junior secondary. The unemployment rate of persons with no formal education is 28.6%, with primary education 34.6% and with junior secondary education 32.7% (NSA, 2019).

5.7.4  Economy

Unemployment rates in Namibia, particularly among the youth, are high with approximately 44.79 % of all people unemployed in 2018. In terms of employment by occupation, it is demonstrated that skilled agricultural or fishery workers made up the largest occupational group in Namibia with 46.5%, followed by the category 'elementary occupation' (18.7%) and then service workers (12.5%).

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

Various mining operations occur within the Erongo region at places such as Navachab and on a smaller scale at places surrounding Uis and the desert area. Karibib also has a marble industry. Walvis Bay, fully incorporated into the Erongo Region in 1994, is the principal home of Namibia's fishing industry. Walvis Bay also boasts the only deep sea port and is the second largest town in the country. Swakopmund and Langstrand are popular beach resorts; Arandis supports mining industry and Swakopmund boasts manufacturing. Facilities such as
schools, hospitals and clinics, the supply of electricity and telecommunication services are, with a few exceptions, well established. Erongo has 66 schools with a total of 32,114 pupils.

5.7.5 Health

Since independence in 1990, the health status of Namibia has increased steadily with a remarkable improvement in access to primary health facilities and medical infrastructure. In 2015 the World Health Organization (WHO) recommended strategic priorities of the health system in Namibia which entail improved governance, an improved health information system, emergency preparedness, risk reduction and response, preventative health care and the combatting of HIV/AIDS and TB (WHO, 2016).

According to the MoHSS health facility census (MoHSS, 2009), the Erongo Region has a record of approximately 150 facilities which include individual private health care practices, group private health care practices, primary health care clinics and workplace clinics. Erongo was recorded to have a high life expectancy, in Namibia. As of 2011, life expectancy, in Erongo was 63 years.

As of the beginning of 2020 the coronavirus disease (COVID-19), caused illness in humans at a pandemic scale and has resulted in an increasing number of deaths worldwide. The viral outbreak is adversely affecting various socio-economic activities globally, and with reports of the increasing number of people testing positive, it is anticipated that this may have significant impacts on the operations of various economic sectors in Namibia too. The disease caused many countries to enter a state of emergency and lockdown mode, with dire economic consequences. In addition, these measures have a detrimental effect on various sectors – and Namibia is in both cases no exception.

5.7.6 Heritage

In Namibia several mountains are closely coupled to heritage values. The Namib Desert has rich archaeological and heritage value and presents valuable information about the occupation of the area dating back 700,000 years. According to the Namibian National Heritage database there are no known national heritage receptors on the EPL, and none were identified during the site visit. In cases where heritage sites are discovered the chance find procedure will be used. In cases where heritage sites are discovered the chance-find procedure will be used.
6 IDENTIFICATION AND EVALUATION OF IMPACTS

The key stage of the EIA process is the impact prediction and evaluation stage. This stage is the process of bringing together project characteristics with the baseline environmental characteristics and ensuring all potentially significant environmental and social impacts are identified and assessed. Impact prediction and evaluation involve envisaging the possible changes to the environment as a result of the proposed project. The recognized methodology was applied to determine the magnitude of impact and whether or not the impact was considered significant and thus warrant further investigation. The assessment considers all stages of the project’s life cycle that is scoped into the assessment and is presented in this report. It is an iterative process that commences at project inception and runs through to the final design and project implementation (construction and operations). The impact prediction and evaluation stages were undertaken in September and October 2020 and the findings of the assessment are presented in this document.

6.1 INTRODUCTION

Chapter 2 provides an overview of the approach used in this EIA process and details each of the steps undertaken to date. Predication and evaluation of impacts is a key step in the EIA process. This chapter outlines the methods followed to identify and evaluate the impacts arising from the proposed project. The findings of the assessment are presented in this chapter.

This chapter provides the following:

- Details on the assessment guidance used to assess impacts;
- Lists the limitations, uncertainties and assumptions with regards to the assessment methodology;
- Details how impacts were identified and evaluated, and how the level of significance was derived; and
- Details how mitigation was applied in the assessment and how additional mitigation was identified.
FIGURE 10 - ECC IMPACT PREDICTION AND EVALUATION PROCESS

<table>
<thead>
<tr>
<th>SCALE OF CHANGE</th>
<th>PROBABILITY</th>
<th>MAGNITUDE OF CHANGE</th>
<th>TYPE OF IMPACT</th>
<th>IMPACT PREDICTION AND EVALUATION PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>External</td>
<td>Low</td>
<td>Low</td>
<td>Minor</td>
<td>Low (1)</td>
</tr>
<tr>
<td>Medium</td>
<td>Medium</td>
<td>Moderate</td>
<td>Major</td>
<td>Medium (2)</td>
</tr>
<tr>
<td>Internal</td>
<td>High</td>
<td>High</td>
<td>Major</td>
<td>High (3)</td>
</tr>
</tbody>
</table>

Sensitivity Analysis Table:

<table>
<thead>
<tr>
<th>Source</th>
<th>Sensitivity</th>
<th>Risk Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>High</td>
<td>Medical training</td>
</tr>
<tr>
<td>Economic</td>
<td>Low</td>
<td>Financial support</td>
</tr>
<tr>
<td>Social</td>
<td>Medium</td>
<td>Community outreach</td>
</tr>
</tbody>
</table>

The following process steps are involved in the impact prediction and evaluation:

1. Identify the potential impacts.
2. Assess the probability of occurrence.
3. Evaluate the magnitude of change.
4. Determine the significance of the impact.
5. Mitigate the identified impacts.

The project team will work collaboratively with all stakeholders to ensure comprehensive evaluation and mitigation strategies.
6.2 LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS

A number of limitations and uncertainties were acknowledged during the EIA process. In line with EIA best practice, assumptions have been made based on realistic worst-case scenarios, thereby ensuring that the worst-case potential environmental impacts are identified and assessed. Table 7 contains the assumptions and uncertainties identified during the assessment process.

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

**TABLE 7 – SUMMARY OF LIMITATION, UNCERTAINTIES AND ASSUMPTION OF THE EIA PROCESS**

<table>
<thead>
<tr>
<th>LIMITATION / UNCERTAINTY</th>
<th>ASSUMPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program of activities</strong></td>
<td>As per the EPL award, work will take place over an initial three-year period to establish potential resources of interest. A detailed timeline of the activities is not available at this point in time, activities will be modified depending on work results.</td>
</tr>
<tr>
<td></td>
<td>If commercially viable concentrations can be defined by preliminary drilling, a next phase of advanced resource drilling operations is possible.</td>
</tr>
<tr>
<td></td>
<td>It is assumed that exploration activities are limited to these stipulated undertakings.</td>
</tr>
<tr>
<td><strong>Number of workers and area they will come from</strong></td>
<td>It is planned that a full-time team will comprise up to seven staff members and contract workers. The numbers of contractors are expected to include the following teams: field sampling and mapping; ground geophysics; possible trenching; and preliminary drilling. Moreover, staff will be sourced from the local authority areas such as Swakopmund, Walvis Bay and possibly nearby villages.</td>
</tr>
<tr>
<td>LIMITATION / UNCERTAINTY</td>
<td>ASSUMPTION</td>
</tr>
<tr>
<td>-------------------------</td>
<td>------------</td>
</tr>
</tbody>
</table>
| **Water supply**        | Water will only be required for field camps once the drilling programme commences. 

It is estimated that the water demand for domestic use would be 5,000 litres or less per day and for initial drilling purposes approximately 20,000 litres or less per day is needed. Agreements with farm owners to abstract water from privately owned boreholes will have to be reached between the proponent and the farm owners. The exact volume of water needed for advanced drilling campaigns are uncertain at this point in time.

Water is anticipated to be obtained from and transported to site, using a mobile water-bowser, from either a local farm or from a local authority. This is subject to permission granted by relevant farm owners or a permit from the local authority. If new boreholes are to be created for water supply purposes for the advanced exploration phase, the exact placement would need to be confirmed in relation to a drill grid. |
| **Access route and creation of new tracks** | The making of new tracks or access roads will be avoided, and existing tracks and routes will be used, as far as possible. While every effort will be made to minimize environmental damage, in some cases it will be necessary to clear some areas to create small roads or access lines to conduct exploration activities. |
| **Structures**          | No permanent infrastructure development will take place in the greenfield phase of operations which will span the 3-year award period. Depending on results, the proponent will set up temporary field camps required to house field staff for the purpose of sample collection, ground surveys and drilling. The camps will be such that their locations can be fully rehabilitated post completion of the field work. |
7 IMPACT ASSESSMENT FINDINGS AND PROPOSED MITIGATION MANAGEMENT MEASURES

This chapter presents the findings of the EIA for the proposed project as per the EIA process, scope and methodology set out in Chapter 2 and Chapter 6. A range of potential impacts have been identified that may arise as a result of the proposed project. The aim of this EIA report is to focus on the significant impacts that may arise as a result of the proposed project. This chapter therefore only considers the significant impacts and or those that may have specific interest to the community and stakeholders. A summary of impacts that are considered significant is discussed in this section.

When undertaking the assessment exercise, the design of the proposed project and best practice measures were considered to ensure the likely significant effects and any required additional mitigation measures were identified. A summary of the potential impacts and mitigation and/or control measures are discussed below.

The following topics were considered during the scoping phase:
- Surface water and groundwater;
- Soils and topography;
- Landscape (visual impacts, sense of place);
- Socioeconomics (employment, demographics, and land-use);
- Noise;
- Ecology (fauna and flora);
- Air quality (emissions, pollutants and dust); and
- Cultural heritage.

Table 8 sets out the findings of the scoping assessment phase. Activities that could be the source of an impact have been listed, followed by receptors that could be affected. The pathway between the source and the receptor has been identified where both are present. Where an activity or receptor has not been identified, an impact is unlikely, thus no further assessment or justification is provided. Where the activity, receptor and pathway have been identified, a justification has been provided documenting if further assessment is required or not required.

Due to the nature and localised scale of the exploration activities, and the environmental context of the EPL, the potential environmental and social effects are limited and unlikely to be significant. The only area where uncertainty remained during the scoping phase was the potential cumulative effects on human receptors from the increase in noise levels and visual impacts. The receptors are mainly the farmers, cattle, neighbours and visitors, although noise may have an effect on some organisms as well.
### TABLE 8 - IDENTIFICATION AND EVALUATION OF IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
<th>RECEPTOR</th>
<th>DESCRIPTION OF ACTIVITY</th>
<th>DESCRIPTION OF IMPACT</th>
<th>EFFECT/DESCRIPTION OF MAGNITUDE</th>
<th>VALUE OF SENSITIVITY</th>
<th>MAGNITUDE OF CHANGE</th>
<th>SIGNIFICANCE OF IMPACT</th>
<th>IMPACT MANAGEMENT/CONTROL MEASURES</th>
<th>RESIDUAL IMPACT AFTER MITIGATION</th>
</tr>
</thead>
</table>
| Groundwater quality | Site operations such as maintenance activities, loss of containment, accidental fuel / hydraulic fluid leaks and spills, or similar sources. | Hydrocarbon leaks and spills could enter the aquifer causing contamination. | Adverse Direct Partly Reversible Moderate Short term Regional Possible | Medium              | Minor                | Minor (4)              | - Good housekeeping;  
- Training through toolbox talks and induction;  
- All stationary vehicles and machinery must have drip trays to collect leakages of lubricants and oil;  
- Spill kits and absorption material available during fuel delivery, storage or use;  
- Accidental spills and leaks (including absorption material) to be cleaned as soon as possible;  
- Major spills to be reported, also to the authorities;  
- Maintenance and service schedules on | Low (2)  |
<table>
<thead>
<tr>
<th>RECEPTOR</th>
<th>DESCRIPTION OF ACTIVITY</th>
<th>DESCRIPTION OF IMPACT</th>
<th>EFFECT/DESCRIPTION OF MAGNITUDE</th>
<th>VALUE OF SENSITIVITY</th>
<th>MAGNITUDE OF CHANGE</th>
<th>SIGNIFICANCE OF IMPACT</th>
<th>IMPACT MANAGEMENT/CONTROL MEASURES</th>
</tr>
</thead>
</table>
| Groundwater quality | Potential spillages of Hydrocarbon leaks and Adverse Indirect | Low                   | Minor                         | Low (2)             | Low (1)              | Low (2)                | - equipment is in place;  
  - Store bulk fuel in adequate containment areas (non-porous surface, bunded to 110% of volume stored, within a fenced-in area)  
  - Ensure integrity of containment with regularly inspections);  
  - No damaged containers in use;  
  - Preventative measures will be in place when service and maintenance activities are done (drip trays, non-porous surfaces, funnels, non-damaged containers);  
  - Refuelling is done in areas with adequate preventative measures in place.  
  - Ensure spill kits and preventative measures |
<table>
<thead>
<tr>
<th>RECEPTOR</th>
<th>DESCRIPTION OF ACTIVITY</th>
<th>DESCRIPTION OF IMPACT</th>
<th>EFFECT/DESCRIPTION OF MAGNITUDE</th>
<th>VALUE OF SENSITIVITY</th>
<th>MAGNITUDE OF CHANGE</th>
<th>SIGNIFICANCE OF IMPACT</th>
<th>IMPACT MANAGEMENT/CONTROL MEASURES</th>
<th>RESIDUAL IMPACT AFTER MITIGATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>drill fluid, lubrication, etc. or exploration activities that penetrate the groundwater table.</td>
<td>spills could enter the aquifer causing contamination.</td>
<td>Partly Reversible Minor Short term Local Possible</td>
<td></td>
<td></td>
<td></td>
<td>(e.g. drill pads) are in place at exploration sites; Drill system should be dug to direct any accidental spills into sumps; and Extraction volumes of water shall be minimal during exploration and where possible, water from existing water sources shall be used.</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>Discharge and infiltration of non-contained wastewater</td>
<td>Wastewater can contaminate surface and groundwater</td>
<td>Adverse Direct Partly Reversible Minor Short term Regional Unlikely</td>
<td>Low</td>
<td>Minor</td>
<td>Low (2)</td>
<td>Wastewater discharges will be contained; Workers will be made aware of the importance of wastewater management; Good housekeeping; and Ensure prompt clean-up of spills.</td>
<td>Low (1)</td>
</tr>
<tr>
<td>Water</td>
<td>Inadequate management</td>
<td>Waste items and litter can contaminate surface and groundwater</td>
<td>Adverse Cumulative</td>
<td>Low</td>
<td>Minor</td>
<td>Low (2)</td>
<td>Good housekeeping; Training and awareness</td>
<td>Low (1)</td>
</tr>
<tr>
<td>RECEPTOR</td>
<td>DESCRIPTION OF ACTIVITY</td>
<td>DESCRIPTION OF IMPACT</td>
<td>EFFECT/DESCRIPTION OF MAGNITUDE</td>
<td>VALUE OF SENSITIVITY</td>
<td>MAGNITUDE OF CHANGE</td>
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</tr>
<tr>
<td>Soil</td>
<td>of waste pollution of waste drainage channels</td>
<td>Reversible Minor Temporary Onsite Unlikely</td>
<td>Low</td>
<td>Low</td>
<td>Low (1)</td>
<td>through toolbox talks and induction; - Implement a Standard Operational Procedure (SOP) on waste management, from cradle to grave for all kinds of waste possible onsite (e.g. domestic, mineral, hydrocarbons, etc.); - Raise awareness about the importance of responsible waste management; - Implement a culture of correct waste collection, waste segregation and waste disposal; - Avoid hazardous waste onsite; and - Wastewater discharges will be contained – no disposal of wastewater or processing or tailings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soil</td>
<td>Inadequate management of hazardous and hydrocarbon waste</td>
<td>Pollution of soil</td>
<td>Adverse Direct Reversible Minor Short term Onsite Possible</td>
<td>Low</td>
<td>Low</td>
<td>Low (1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Soil

Inadequate management of hazardous and hydrocarbon waste
Pollution of soil
Reversible Minor Temporary Onsite Unlikely
Low
Low
Low (1)
through toolbox talks and induction;
- Implement a Standard Operational Procedure (SOP) on waste management, from cradle to grave for all kinds of waste possible onsite (e.g. domestic, mineral, hydrocarbons, etc.);
- Raise awareness about the importance of responsible waste management;
- Implement a culture of correct waste collection, waste segregation and waste disposal;
- Avoid hazardous waste onsite; and
- Wastewater discharges will be contained – no disposal of wastewater or processing or tailings.
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<th>EFFECT/DESCRIPTION OF MAGNITUDE</th>
<th>VALUE OF SENSITIVITY</th>
<th>MAGNITUDE OF CHANGE</th>
<th>SIGNIFICANCE OF IMPACT</th>
<th>IMPACT MANAGEMENT/CONTROL MEASURES</th>
<th>RESIDUAL IMPACT AFTER MITIGATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terrestrial ecology and biodiversity</td>
<td>Vegetation clearing for access routes and exploration activities</td>
<td>Loss / alteration of terrestrial habitats and loss of species</td>
<td>Adverse Direct Reversible Minor Short term Onsite Possible</td>
<td>Low</td>
<td>Minor</td>
<td>Low (2)</td>
<td>- Use existing roads for access to avoid creating new tracks; - Minimise clearance areas through proper planning of the exploration activities, especially at drill areas; - Where necessary, rescue and relocate plants of significance; and - Promote revegetation of cleared areas upon completion of exploration activities.</td>
<td>Low (1)</td>
</tr>
<tr>
<td>Terrestrial ecology and biodiversity</td>
<td>Ambient noise as a result of machinery use (i.e. drill rigs), hammering on metal surfaces the diesel</td>
<td>Game, residing, nesting and slow moving organisms can be disturbed</td>
<td>Adverse Direct Reversible Minor Short term Onsite</td>
<td>Low</td>
<td>Low</td>
<td>Low (1)</td>
<td>- Restrict excessive noise to areas of activities only; - Restrict excessive noise to daytime hours (7 am to 5 pm weekdays and 7 am until 1 pm on Saturday);</td>
<td>Low (1)</td>
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<td>RECEPTOR</td>
<td>DESCRIPTION OF ACTIVITY</td>
<td>DESCRIPTION OF IMPACT</td>
<td>EFFECT/DESCRIPTION OF MAGNITUDE</td>
<td>VALUE OF SENSITIVITY</td>
<td>MAGNITUDE OF CHANGE</td>
<td>SIGNIFICANCE OF IMPACT</td>
<td>IMPACT MANAGEMENT/CONTROL MEASURES</td>
<td>RESIDUAL IMPACT AFTER MITIGATION</td>
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<td>generator, and vehicle movement (also through the use of airborne equipment)</td>
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<td>Likely</td>
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<td>- No activities between dusk and dawn; - Exploration equipment shall be suitably positioned to ensure that noisy equipment is away from receptors; - All equipment to be shut down or throttled back between periods of use; - Comply with civic aviation regulations and condition</td>
<td></td>
</tr>
<tr>
<td><strong>Terrestrial ecology and biodiversity</strong></td>
<td>Increased movement of vehicles and equipment</td>
<td>Game, residing, nesting and slow-moving organisms can be disturbed, injured or killed</td>
<td>Adverse Direct Partly Reversible Moderate Short term Onsite Possible</td>
<td>Low</td>
<td>Moderate</td>
<td>Minor (3)</td>
<td>- Restrict movements to areas of activities only. - Use existing tracks and routes only. - Identify rare, endangered, threatened and protected species in advance. - Route new tracks around protected species and sensitive</td>
<td>Low (1)</td>
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<td>RECEPTOR</td>
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</tbody>
</table>
| Terrestrial ecology and biodiversity | Veld fires during high wind periods | Terrestrial biodiversity destruction due to uncontrolled fire outbreaks | Adverse Direct Partly Reversible Moderate Temporary Onsite | High | Moderate | Moderate (6) | - Restrict movements to daytime hours.  
- Make workers aware and notify them on avoiding some areas.  
- No driving off designated access routes / off-road driving.  
- No animals or birds may be collected, caught, consumed onsite or removed from site. | Minor (4) |

- No open fires are allowed to be lit by personnel associated with the proponent anywhere on the EPL outside of dedicated campsites;  
- The proponent to ensure that exploration campsites have proper cooking facilities available to use. Gas
<table>
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<tr>
<th>RECEPTOR</th>
<th>DESCRIPTION OF ACTIVITY</th>
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<td>stoves are the preferred option;</td>
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<td>- No cigarette butts are allowed to be discarded into the environment. These should be contained in appropriate domestic containment bins and disposed of at the local landfill site;</td>
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<td>- No unauthorised movement beyond the exploration areas and campsites is allowed; and</td>
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<td>- Proper fire hazard identification signage to be placed in areas that store flammable material (i.e. hydrocarbons and gasbottels).</td>
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<td>RECEPTOR</td>
<td>DESCRIPTION OF ACTIVITY</td>
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<tr>
<td>Terrestrial ecology and biodiversity</td>
<td>Increased disturbance of areas with natural vegetation</td>
<td>Alien species and weeds can be introduced to the area</td>
<td>Adverse Direct Reversible Minor Short term Onsite Possible</td>
<td>Low</td>
<td>Low</td>
<td>Low (1)</td>
<td>- Monitor areas of activity for weed and alien species; - Eradicate weeds and alien species as soon as they appear, and - Make workers aware about alien species and weeds.</td>
<td>Low (1)</td>
</tr>
<tr>
<td>Soil</td>
<td>Vegetation clearing</td>
<td>Increased exposure of soil due to vegetation clearance can cause soil erosion</td>
<td>Adverse Direct Reversible Moderate Short Term Onsite Possible</td>
<td>Low</td>
<td>Moderate</td>
<td>Minor (3)</td>
<td>- Ensure erosion control and prevention measures are in place when vegetation clearance is required, especially in upslope areas; - Where possible, plan access routes, drill pads and other activities outside of existing drainage lines; - Where necessary, install diversions to curb possible erosion, and - Restore drainage lines</td>
<td>Low (1)</td>
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<td>RECEPTOR</td>
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<tr>
<td>Soil</td>
<td>Exploration activities, heavy equipment and vehicles</td>
<td>Loss of soil quality due to mixing of earth matter, trampling and compaction</td>
<td>Adverse Direct Reversible Moderate Short term Onsite Possible</td>
<td>Low</td>
<td>Moderate</td>
<td>Minor (3)</td>
<td>- Limit the possibility of compaction and creating of a hard subsurface; - Limit the possibility of trampling; - Compacted soil areas should be loosed by ripping methods; - Where possible, topsoil should be stockpiled separately, and re-spread during rehabilitation; - During exploration activities with heavy equipment, oil absorbent matting should be placed under and around the equipment; - Equipment must be in a good condition to ensure that accidental</td>
<td>Low (1)</td>
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<td>RECEPTOR</td>
<td>DESCRIPTION OF ACTIVITY</td>
<td>DESCRIPTION OF IMPACT</td>
<td>EFFECT/Description of Magnitude</td>
<td>VALUE OF SENSITIVITY</td>
<td>MAGNITUDE OF CHANGE</td>
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<tr>
<td>Heritage</td>
<td>Exploration activities, movement of machinery and vehicles</td>
<td>Potential damage to cultural heritage sites</td>
<td>Adverse Direct Partly Reversible Negligible Permanent Onsite Possible</td>
<td>High</td>
<td>Major</td>
<td>Major (12)</td>
<td>- Implement a Chance Find Procedure; - Raise awareness about possible heritage finds; - Report all finds that could be of heritage importance; - In case archaeological remains to be uncovered, cease activities and the site manager has to assess and demarcate the area; - Project manager to visit the site and determine</td>
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</table>

Residual Impact After Mitigation: Minor (4)

Oil spills do not occur and contaminate soil; - In the event of spills and leaks, polluted soils must be collected and disposed of at an approved site, and - Limit the possibility to mix mineral waste with topsoil.
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<th>RECEPTOR</th>
<th>DESCRIPTION OF ACTIVITY</th>
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<td>whether work can proceed without damage to findings, mark exclusion boundaries and inform ECC with GPS position;</td>
<td>- If needed, further investigation has to be requested for a professional assessment and the necessary protocols of the Chance Find Procedure have to be followed;</td>
</tr>
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<td>RECEPTOR</td>
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<td>VALUE OF SENSITIVITY</td>
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<tr>
<td>Community</td>
<td>Exploration activities, including dust and emissions</td>
<td>Visual disturbance and temporary reduction in the sense of place</td>
<td>Adverse Direct Reversible Negligible Temporary Local Likely</td>
<td>High</td>
<td>Moderate</td>
<td>Major (9)</td>
<td>- Obtain appropriate clearance or approval from the competent authority, if required, and recover and remove the remains to the National Museum or National Forensic Laboratory as directed.</td>
<td>Minor (4)</td>
</tr>
</tbody>
</table>

- Limit trenching and bulk sampling as far as possible;
- Position heavy equipment in such a way that it is out of sight from human receptors;
- Apply dust suppression where possible (drilling, loading, hauling, tipping);
- Restrict speed of vehicles (<30km/h);
- Specific activities that may generate dust and impact on residents.
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<th>RECEPTOR</th>
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<td>shall be avoided during high wind events;</td>
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<td>- All vehicles and machinery / equipment to be shut down or throttled back between periods of use;</td>
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<td>- Barriers or fences shall be used if exploration occurs in locations that may affect people, livestock or wildlife;</td>
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<td>- Residents need to be informed at least two weeks in advance that exploration operations are within 1km of their property;</td>
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<td>- Maintain good housekeeping;</td>
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<td>- Continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management</td>
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<td>RECEPTOR</td>
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<td>DESCRIPTION OF IMPACT</td>
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<tr>
<td>Community</td>
<td>Movement of vehicles, exploration activities</td>
<td>Create conflict with farm owners and neighbours about access, leaving gates open, suspicious movements, loss of farming area, etc.</td>
<td>Adverse Indirect Reversible Minor Short term Onsite Likely</td>
<td>Low</td>
<td>Minor</td>
<td>Low (1)</td>
<td>- Ensure documented permission to enter farms; - Farmers should have access to all farm areas at all times; - Residents shall be provided at least two weeks’ notice of exploration operations within 1 km of their property; - Existing water points and feeding areas need to be left unaffected; - Use existing roads for access, avoid new tracks, clearances; - Compliance with all applicable laws and agreements; and - Continuous engagement with residents to identify any</td>
<td>Low (1)</td>
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<td>RECEPTOR</td>
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<td>DESCRIPTION OF IMPACT</td>
<td>EFFECT/DESCRIPTION OF MAGNITUDE</td>
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</tbody>
</table>
| Community | Movement of vehicles, exploration activities | Presence of exploration team can be blamed for stock theft and poaching | Adverse Cumulative Reversible Minor Temporary Local Unlikely | Low | Minor | Low (2) | - Develop and implement an operations manual of procedures to work on private farms and implement monitoring programmes thereafter.  
- Maintain continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management measures agreed upon.  
- Ensure appropriate supervision of all activities.  
- Raise awareness and sensitize employees about contentious issues such as stock theft and poaching.  
- Accidents and incidents | Low (1) |
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<th>RECEPTOR</th>
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<th>SIGNIFICANCE OF IMPACT</th>
<th>IMPACT MANAGEMENT/CONTROL MEASURES</th>
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<tbody>
<tr>
<td>Community and livestock</td>
<td>Airborne EM survey over the EPL, possible low flying, coarse line spacing =&gt; 1km</td>
<td>Perceived impact from low-flying EM survey activities on livestock and humans</td>
<td>Adverse indirect Reversible Minor Temporary Local Unlikely</td>
<td>Low</td>
<td>Minor</td>
<td>Low (2)</td>
<td>need to be reported to the project manager and recorded in an incident register. - Prior to conducting aerial surveys, both directly and indirectly affected parties should be informed in writing of exploration activities at least 2 weeks prior to conducting the aerial surveys. - The following information is to be included in the written communication sent. This can be in the form of a Press Notice. - Company name, - Survey dates, time and duration, - Purpose of the survey, - Flight altitude, - Survey location, Map of survey area and flight</td>
</tr>
</tbody>
</table>

need to be reported to the project manager and recorded in an incident register. - Prior to conducting aerial surveys, both directly and indirectly affected parties should be informed in writing of exploration activities at least 2 weeks prior to conducting the aerial surveys. - The following information is to be included in the written communication sent. This can be in the form of a Press Notice. - Company name, - Survey dates, time and duration, - Purpose of the survey, - Flight altitude, - Survey location, Map of survey area and flight
### Receptor: Community

**Description of Activity:** Exploration activities

**Description of Impact:** Triggers job creation, skills development and opportunities for the local economy

<table>
<thead>
<tr>
<th>Receptor</th>
<th>Description of Activity</th>
<th>Description of Impact</th>
<th>Effect/Description of Magnitude</th>
<th>Value of Sensitivity</th>
<th>Magnitude of Change</th>
<th>Significance of Impact</th>
<th>Impact Management/Control Measures</th>
<th>Residual Impact After Mitigation</th>
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</thead>
</table>
| Community  |                         | Triggers job creation, skills development and opportunities for the local economy | Beneficial Direct Reversible Minor Short term Local Possible | Low                  | Minor               | **Low (2)**                  | - Maximize local employment.  
- As far as possible promote local procurement.  
- Enhance development of local skills where possible. | **Low beneficial**                                                |

- Contact details for enquiries.
8 ENVIRONMENTAL MANAGEMENT PLAN

The EMP for the proposed project is presented in Appendix A. It provides management options to ensure the impacts of the proposed project are minimised. An EMP is a tool used to take pro-active action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures might be included if necessary.

The management measures should be adhered to during all stages of the exploration activities. All persons involved and partaking in the proposed activities should be made aware of the measures outlined in the EMP to ensure activities are conducted in an environmentally responsible manner.

The objectives of the EMP are:

- To include all components of the development and operations of the project;
- To prescribe the best practicable control methods to lessen the environmental impacts associated with the project;
- To monitor and audit the performance of operational personnel in applying such controls; and
- To ensure that appropriate environmental training is provided to responsible operational personnel.
9 CONCLUSION

ECC’s EIA methodology was used to undertake the environmental assessment for the proposed project to identify if there is potential for significant effects to occur as a result of the proposed project. Through the scoping process, the only risk to the environment was the potential for visual impacts and noise levels to increase thereby impacting human receptors in the area. All other social and environmental receptors were scoped out as significant effects were unlikely and therefore no further assessment was deemed necessary. Through further analysis and identification of mitigation and management methods, the assessment concludes that the likely significance of effects on humans from noise impacts is expected to be minor and prior awareness and communication about the project shall be encouraged. Various best practice and mitigation measures have been identified to avoid and reduce effects as far as reasonably practical, as well as ensure the environment is protected and unforeseen effect and environmental disturbances are avoided.
REFERENCES


APPENDIX A- EMP
APPENDIX B - NON-TECHNICAL SUMMARY
NON-TECHNICAL SUMMARY

EXPLORATION ACTIVITIES ON EPL 7435
FOR NUCLEAR FUEL MINERALS

PREPARED FOR

MARENICA VENTURES (PTY) LTD

DECEMBER 2020
1 PURPOSE OF THIS DOCUMENT

The purpose of this Non-Technical Summary (NTS) is to provide Interested and Affected Parties (I&APs) a background to the proposed project and to invite I&APs to register as part of the Environmental Social Impact Assessment (ESIA) process.

The proposed project involves exploration activities for nuclear fuel minerals on Exclusive Prospecting Licence (EPL) 7435 operated by Marenica Ventures (Pty) Ltd.

Through registering for the project, all I&APs will be kept informed throughout the ESIA process, and a platform for participation will be provided to submit comments / recommendations pertaining to the project.

This NTS includes the following information:
- The proposed project and location;
- The necessity of the project, benefits or adverse impacts anticipated;
- The alternatives to the project that have been considered and assessed;
- How the ESIA process works;
- The public participation process and how to become involved; and
- Next steps and the way forward.

2 DESCRIPTION OF PROPOSED PROJECT

2.1 BRIEF INTRODUCTION

Environmental Compliance Consultancy (ECC) has been engaged by the proponent Marenica Ventures (Pty) (Ltd) to undertake an ESIA and an Environmental Management Plan (EMP) in terms of the Environmental Management Act, 2007 and its regulations. An environmental clearance application will be submitted to the relevant competent authorities; the Ministry of Mines and Energy (MME) and Ministry of Environment, Forestry and Tourism (MEFT).

2.2 LOCATION

Marenica Ventures (Pty) Ltd proposes to explore on EPL 7435 in an area potentially prospective for uranium in western Namibia, Erongo Region. The sites can be accessed via . The location is shown in Figure 1.

2.3 WHAT IS PROPOSED

Marenica Ventures (Pty) Ltd will fully operate the exploration program, in search for mineral deposits of nuclear fuel minerals. Various exploration techniques and methods will be used on the EPL as set out in section 2.5.

Marenica adhere fully to the norms of Health, Safety and Environment.

2.4 WHY IS THE PROJECT NEEDED

Marenica Ventures intends to pursue exploration opportunities with the aim of identifying new mining prospects. Exploration could lead to mining activities, which would contribute to the national and local economies.

2.5 OPERATION PHASE

The proposed exploration activities are generally low-impact and non-intrusive. The exploration activities to be used may be ‘scaled up’ depending on exploration findings. The following are envisaged during the proposed project:
- Airborne geophysical surveys (non invasive);
- Potential creation of access tracks, where existing tracks cannot be utilised;
- Limited vegetation clearing for the creation of tracks, and survey access; and
- Ground exploration activities may include soil and rock sampling, geological mapping, geophysical surveys, temporary trenching, drilling and drill-core sampling.
FIGURE 1 – LOCATION MAP OF THE PROPOSED PROJECT
2.6 POTENTIAL IMPACTS OF THE PROJECT

2.6.1 SOCIO-ECONOMIC
The potential social impacts are anticipated to be of low significance, and those that may transpire shall be confined within the EPL site, these potential impacts may include the following:
- Potential to unearth, damage or destroy undiscovered heritage remains;
- Minor disruption to the residents within the EPL, including some increase in noise levels and dust arising from drilling and vehicle use;
- Some jobs will be created as a result of the project; and
- There will be economic benefits due to increased investment and investor confidence in the Namibian minerals sector.

2.6.2 ENVIRONMENTAL
The potential environmental impacts are anticipated to be of minor significance, and those that may occur shall be contained within the EPL site, these potential impacts may include the following:
- Some potential vegetation loss due to possible tracks creation; the vegetation is expected to recover fully during ensuing rain seasons;
- Potential use of resources, including surface and groundwater; and
- Minor risk of loss of contaminant of hydrocarbon, chemical or drill fluids from exploration activities potentially leading to localised ground contamination; this aspect will be controlled at all times.

3 CONSIDERATION OF ALTERNATIVES

Best practice environmental assessment methodology calls for consideration and assessment of alternatives to a proposed project.

In a project such as this one, it is difficult to identify alternatives to satisfy the need of the proposed project; the activities shall be specific to the EPL, which were granted by the MME.

During the assessment, alternatives will take the form of a consideration of optimisation and efficiency to reduce potential effects e.g. different types of technology or operations, route access and exploration methods.

4 THE ENVIRONMENTAL ASSESSMENT PROCESS

This ESIA, conducted by ECC, is undertaken in terms of the Environmental Management Act, 2007 and its regulations. The process followed in this ESIA is set out in the flowchart in Figure 2.
4.1 SCREENING
A review of the proposed project screening findings against the listed activities was conducted; the findings of which are summarised below.

FORESTRY ACTIVITIES
(4) The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in terms of the Forest Act, 2001 (Act No. 12 of 2001) or any other law.

- Limited vegetation clearing may be required for tracks and survey access creation, and possibly for the set up for survey teams’ field camps.

WATER RESOURCE DEVELOPMENT
(8.1) The abstraction of ground or surface water for industrial or commercial purposes

- Due to the drilling of exploration boreholes, ground and surface water will need to be abstracted, or sourced.

MINING AND QUARRYING ACTIVITIES
(3.1) The construction of facilities for any process or activities which requires a licence, right or other form of authorisation, and the renewal of a licence, right or other form of authorisation, in terms of the Minerals (Prospecting and Mining Act), 1992

- This listed activity, infers the provisions of the Minerals Act (Prospecting and Mining) Act 33 of 1992, under different licenses as basis upon which certain activities qualify for an EIA. Part X of the Minerals Act (1992) defines prospecting/exploration activities under the lawful ownership of an exploration license (EPL). An exploration license excludes any mining activities, but includes activities strictly relating to exploration work. Hence the current project strictly focuses on exploration and not mining

(3.2) Other forms of mining or extraction of any natural resources whether regulated by law or not

- All extraction during exploration will be for geochemical and geological sampling purposes only.

4.2 BASELINE STUDIES
For the proposed project, baseline information will be obtained through desk-based studies and site verification.

The ESIA will focus on the environmental receptors that could be affected by the proposed project. ECC will also engage with stakeholders, I&APs and the proponents to seek input into the assessment.

4.3 IMPACT ASSESSMENT
Impacts will be assessed using the ECC ESIA methodology. The ESIA will be conducted in terms of the Environmental Management Act, 2007 and its regulations. ECC’s methodology for impact assessments was developed using IFC standards in particular Performance Standard 1 ‘Assessment and management of environmental and social risks and impacts’ (IFC 2012, 2017) and Namibian Draft Procedures and Guidance for ESIA and EMP (GRN, 2008) including international and national best practice with over 25 years of combined ESIA experience.

4.4 ENVIRONMENTAL MANAGEMENT PLAN
An EMP shall be developed for the proposed project setting out auditable management actions for the project to ensure careful and sustainable management measures are implemented for their activities in respect of the surrounding environment and community.

4.5 PUBLIC PARTICIPATION AND ADVERTISING
Public participation is an important part of the ESIA process; it allows the public and other stakeholders to raise concerns or provide valuable local environmental knowledge that can benefit the assessment, in addition it can aid the
design process. This project is currently at the scoping phase and public participation phase.

At this phase ECC will perform the following:
- Identify key stakeholders, authorities, municipalities, environmental groups and interested or affected members of the public, hereafter referred to as I&APs
- Distribute the NTS for the proposed project (this document)
- Advertise the environmental application in two national newspapers
- Place notices on-site at or near the boundary
- If required host a public meeting to encourage stakeholder participation and engagement, and provide details of issues identified by the environmental practitioner, stakeholders and I&APs
- Record all comments of I&APs and present such comments, as well as responses provided by ECC, in the comments and responses report, which will be included in the scoping report that shall submitted with the application, and
- Circulate I&AP comments to the project team for consideration of project design.

Comments must be submitted in writing and can be emailed using the details in the contact us section below.

CONTACT US

We welcome any enquiries regarding this document and its content. Please contact:

Environmental Compliance Consultancy (ECC)
info@eccenvironmental.com
Tel: +264 816 697 608
www.eccenvironmental.com

At ECC we make sure all information is easily accessible to the public.

Follow us online to be kept up to date:
The following was advertised in the ‘Republikein, Sun, and Allgemeine Zeitung’ newspapers on the 10th February 2021.
The following was advertised in the ‘Republikein, Sun, and Allgemeine Zeitung’ newspapers on the 17th February 2020.

WEDNESDAY 19th FEBRUARY 2021
Market Watch

>> Economics of corruption

South Africa’s Zuma could be jailed

Ramaphosa has been trying to restore investor confidence in Africa’s most industrialised nation since Zuma’s departure.

ALEXANDER WINNING

South African media are reporting that Jacob Zuma’s lawyer, Jeremy Gordon, has filed a notice of appeal against the recent charges laid against his client. The news is a blow to the government and could have far-reaching implications for the country’s political landscape.

Ramaphosa’s government has been under pressure to basename Zuma for corruption allegations. The move comes as the country grapples with the ongoing Covid-19 pandemic, which has caused widespread disruption and economic uncertainty.

Instability

The situation in South Africa is further complicated by the recent economic downturn, which has resulted in high unemployment and poverty rates.

South African President Cyril Ramaphosa has been trying to restore investor confidence in the country since Zuma’s departure.

Former South African President Jacob Zuma (Photo: Morné Nel/AFP)

South Africa’s Africa’s most industrialised nation. (Photo: Morné Nel/AFP)

URGENT NOTICE:

TO: ALL MEMBERS OF MEATO
FROM: CHAIRPERSON OF THE BOARD
DATE: 18 FEBRUARY 2021
SUBJECT: MEATO 2021 ANNUAL MEETING SCHEDULED FOR 19 FEBRUARY 2021

Dear esteemed Member of Meato,

Following due consideration of the prevailing Covid-19 Regulations and protocols which, amongst other provisions, restrict public gatherings to a maximum of 50 persons for a period of 1 hour, the executive committee of Meato, having read the regulations of Meato (registered in terms of sections 13 and 17 of the Non-Profit Organisations Act, No. 7 of 2008), that the 2020 AGM which was initially scheduled for 19th February 2021 is due to be adhered to, hereby postpones the same to a further notice.

For any clarification on the above, kindly forward any enquirers to the Chairperson of the Board of Directors through the office of the Company Secretary: chairman@meato.co.za

Yours faithfully,

Chairperson

Chairman Meato Board of Directors

TENDER INVITATION

Design, Development and Delivery of Start-up Incubation Programme for Vocational Training Students/Graduates

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is an expert of the Federal Republic of Germany and works worldwide in the field of international cooperation for sustainable development and international education. GIZ provides viable, forward-looking solutions for political, economic, social and cultural development in a globally diverse world. Our corporate objective is to improve people’s lives in a sustainable way.

The GIZ Technical Cooperation programme, i.e. Promotion of Vocational Education and Training in Namibia (ProVET), complements the government and education sectors of Namibia and Germany in the priority area of sustainable economic development. It is anticipated that the programme will bring about qualitative improvement in the provision of workforce training, in accordance with set targets.

ProVET is now looking for an Expert(s) to Design, Develop and Deliver the Start-up Incubation Programme for Vocational Training Students/Graduates.

Following are some of the key objectives of this assignment:

- Identify a market need for the establishment of new startups, assess their business model and key factors for success.
- Lead the process of establishing a new initiative, providing technical assistance and support.
- Ensure compliance with business development standards.
- Ensure sustainability in achieving goals and objectives.
- Conduct 10 days intensive bootcamp in Windhoek (3 days in phase 1 and 3 days in phase 2).
- Engage with stakeholders to present the business model.

Details of the required services are outlined in the Terms of Reference, which is available from the address mentioned below.

Terms of References can be requested via email at: info@meato.co.za

Deadline for tender submission is 5th March 2021 at 0900h. Bids must be hand delivered to the following address: Procurement Unit, GIZ OFN, Namibia, No. 86 John Morgan Street, Windhoek West.

MARCH 2021
REV 01
ECC DOCUMENT CONTROL - ECC-79-337-REP-11-D
PAGE 76 OF 87

EXPLORATION ACTIVITIES ON EPL 7435
MARENICA VENTURES (PTY) LTD
NOTICE OF AN ENVIRONMENTAL ASSESSMENT & PUBLIC PARTICIPATION PROCESS FOR EXPLORATION ACTIVITIES ON EPL 7435 AND EPL 7508 FOR NUCLEAR FUEL MINERALS, IN THE ERONGO REGION, NAMIBIA

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

Applicant: Marenica Ventures (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Erongo Region, Namibia

Proposed Project Activity: The proponent, Marenica Ventures (Pty) Ltd, propose to undertake exploration activities on EPL 7435 and EPL 7508 for nuclear fuel minerals in the Erongo Region, Namibia.

Exploration methods may include an airborne electromagnetic survey (non-invasive, coarse line spacing) and ground truthing: soil and rock-chip sampling, geological mapping and geophysical surveys. Exploration sampling and drilling may occur at a later stage should initial test results appear viable.

I&APs Registration: The purpose of the review and registration period is to introduce the proposed project and to afford Interested and Affected Parties (I&APs) an opportunity to register and comment on the Non-Technical Summary (NTS), to ensure that potential issues and concerns are brought forward, so that they can be considered and assessed during the impact assessment process.

Registration period is effective from 10 to 24 February 2021.

I&APs and stakeholders are required to register for the project at:

https://eccenvironmental.com/projects

The team at ECC will then maintain contact with all registered I&APs to engage and to keep them informed as the ESIA process develops. ECC will also provide registered I&APs input opportunities and review periods throughout the assessment process.

Environmental Compliance Consultancy
Registration Number: CC/2013/11404
Members: Mr JS Bezuidenhout or Mrs J Mooney
PO Box 91193, Klein Windhoek
Tel: +264 81 166 7608
E-mail: info@eccenvironmental.com
Website: http://www.eccenvironmental.com
Project ID: ECC-79-337-ADT-10-B

MARENICA VENTURES (PTY) LTD
APPENDIX C.2 SITE NOTICE, STAKEHOLDERS LETTERS AND EVIDENCE OF POSTED MAIL
SITE NOTICE
RE: NOTIFICATION OF ENVIRONMENTAL ASSESSMENT FOR EXPLORATION ACTIVITIES NUCLEAR FUEL MINERALS ON EPL 7435 AND EPL 7568 IN THE ERONGO REGION, NAMIBIA.

Environmental Compliance Consultancy (ECC) has been engaged by Marenica Ventures (Pty) Ltd (the Proponent) to act on their behalf for the environmental clearance certificate application in terms of the Environmental Management Act, No. 7 of 2007 for the proposed exploration activities on EPL 7435 and EPL 7568 for nuclear fuel minerals in the Erongo Region, Namibia.

This letter is intended to engage potentially interested and affected parties (IAAPs) of the project and provide a communication channel to ECC for the project. You have been identified as an interested or affected party and therefore ECC wishes to inform you how you can interact with the ESIA.

The proposed project is to conduct mineral exploration activities. Specific areas of focus will be developed by the proponent on which initial exploration activities will commence in certain areas (e.g., outcrop inspection or mapping, soil and rock chip sampling, and a low-level coarse-spacing airborne survey). As part of the proposed exploration project, the following activities are thus envisaged, which shall be confirmed, as the exploration program is refined:

- Airborne geophysical survey (non-invasive, coarse line spacing);
- Potential creation of access tracks, where existing tracks cannot be utilised;
- Limited vegetation clearing for the creation of tracks, and survey access; and
- Ground exploration activities may include soil and rock chip sampling, geological mapping, geophysical surveys, temporary trenching, drilling and drill-core sampling.

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

- Advertising in newspapers, public notice boards (already done);
- Distributing a Non-Technical Summary (NTS) to identified IAAPs; available on line at https://ecenvironmental.com/projects/;
- Registered IAAPs will also be informed of the available draft scoping report for a review period, during this period IAAPs will have the opportunity to review the draft document and raise any issues or concerns, and
• iRAPs who wish to register as such must do so on the ECC website as per the link provided below:
  https://eccenvironmental.com/projects/

If you are unable to complete the registration form online, please contact us via email for assistance.
info@eccenvironmental.com
ECC values community input and participation in our projects and we look forward to working with you as the project develops.
Should you have any questions or require additional information please do not hesitate to contact either of us.

Yours sincerely,

[Signature]
Stephen Deegan
Environmental Compliance Consultancy
Office: +264 81 669 7608
Email: stephan@eccenvironmental.com

[Signature]
Jessica de Wet Mooney
Environmental Compliance Consultancy
Office: +264 81 669 7608
Email: jessica@eccenvironmental.com

22 FEB 2021
www.eccenvironmental.com
**LIST OF REGISTERED ITEMS POSTED**

Marenica - EPL 7435 and EPL 7508
by Environmental Compliance Consultancy (ECC) P.O. Box 91193, Klein Windhoek

<table>
<thead>
<tr>
<th>Sender’s reference no.</th>
<th>Addresser’s name and address</th>
<th>Registration no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Erongo Region, P/Bag 13384, Windhoek</td>
<td>RR 019 752 247 NA</td>
</tr>
<tr>
<td>2</td>
<td>Erongo Region, P/Bag 13384, Windhoek</td>
<td>RR 019 752 247 NA</td>
</tr>
<tr>
<td>3</td>
<td>Erongo Region, P.O. Box 1597, Swakopmund</td>
<td>RR 019 752 247 NA</td>
</tr>
<tr>
<td>4</td>
<td>Erongo Region, P.O. Box 1167, Swakopmund</td>
<td>RR 019 752 278 NA</td>
</tr>
<tr>
<td>5</td>
<td>Erongo Region, P.O. Box 1224, Swakopmund</td>
<td>RR 019 752 281 NA</td>
</tr>
<tr>
<td>6</td>
<td>Erongo Region, P.O. Box 279, Karibib</td>
<td>RR 019 752 288 NA</td>
</tr>
</tbody>
</table>

Number of items: 6

Received by: [Signature]

No compensation will be considered unless enquiry regarding this postal article is made within one year after the date of posting.
Environmental Compliance Consultancy website:
www.eccenvironmental.com
APPENDIX C.3

Commentary log of comments received from registered I&APs.
### LOG OF ALL COMMENTS AND RESPONSES GENERATED THROUGHOUT PUBLIC CONSULTATION

<table>
<thead>
<tr>
<th>NO.</th>
<th>CHAPTER</th>
<th>SECTION</th>
<th>I&amp;AP / STAKEHOLDER COMMENT RECEIVED</th>
<th>STAKEHOLDER DETAILS</th>
<th>RESPONSE / CLARIFICATION</th>
</tr>
</thead>
</table>
| 1.  | -       | -       | Wants to be registered as an I&AP (Geologist) | Mr. Jurgen Hoffmann (Geologist) Via email & phonecall 23.02.2021 | Response from ECC 24.02.2021  
Dear Mr. Jurgen Hoffmann,  
Thank you for your interest. Please be informed that you have been registered as a stakeholder for the proposed projects:  
The exploration activities on EPL 7435 for nuclear fuel minerals in the Erongo Region, Namibia; and  
The exploration activities on EPL 7508 for nuclear fuel minerals in the Erongo Region, Namibia.  
All project-related details will be included in the assessment reports, which will be circulated to all registered I&APs in due course for review and commentary.  
In the meantime, kindly follow the link below to access the Non-Technical Summary (NTS) or background information documents (BID).  
|   | - | - | Concerns with regard to exploration and/or mining in the area | Mr. Detlef Klein | Via email | 29.03.2021 | Response 30.03.2021 | Standard I&AP email |

**COMMENTS RECEIVED BASED ON THE DRAFT SCOPING REPORT AND EMP PROVIDED TO REGISTERED INTERESTED AND AFFECTED PARTIES (I&APS)**
Hello! :)

Jessica Mooney
Director & Principal Environmental Practitioner

ABOUT ME

Name
Jessica Mooney

Born
24 October 1984

Phone
+264 81 653 1214

Email
Jessica@eccenvironmental.com

Website
www.eccenvironmental.com

Contact me!

How to reach me!

+264 81 653 1214
Jessica.mooney7
+264 81 653 1214

Education & Qualifications

Federation University
Australia
2003-2006

Bachelor of Applied Science - Environmental Management

Management Systems Leadership
ICAM - Incident Cause Analysis Method
Certificate II in Metalliferous Mining core safety and risk management
Certificate III in Mine Emergency Response & Rescue
Level 3 – HLTFA402B Apply Advanced first Aid
Emergency Rope Rescue
Level 2 - 21593VIC First Aid level 2
Bonded Asbestos Removal >10m2
Leading and Managing People – Brisbane North Institute of TAFE

Experience & Work History

Current

Environment Specialist

Environmental Compliance Consultancy
With 13 years international experience, Jessica provides professional consulting services to clients in Namibia with particular focus on approvals, ECCs, reporting and compliance.
- ECC Approvals
- Mine Closure Plans
- Rehabilitation
- Strategic Environmental Impact Assessments
- Social Impact Assessments
- ARD/AMD Assessments and Reporting
- IMS (ISO14001 and 18001)

Group HSE Manager

Weatherly Mining Namibia
An exciting role covering the breadth of two operational underground mines (Otjihase and Matchless) and the construction of a new open pit mine (Tschudi) working for Weatherly Mining in Namibia, Africa.
- Managed company’s SHEQ portfolio
- Full scale construction of new greenfield mine into operational copper mine
- Reduced LTIFR by 90% from 23.1 to 2.4 in 22 months!
- Implemented integrated management system
- Approvals, ECC renewals and EMPs
- Established the first mining environmental forums in Namibia
- Implemented SAFE COPPER cultural change programme

Nov 2013-Feb 2016

Experience & Work History

Environmental Consultant

Feb 2013 - Feb 2014

Ensolv Pty Ltd - Australia

In February 2013 an opportunity came about to launch my own business, Blue Wren Environmental Services.

During this time I have worked alongside Ensolv Pty Ltd to deliver several environmental projects including:

- A mine closure project taking an operating mine site into the rehabilitation and closure phase. This project involved the full development of a mine closure plan, facilitation of the government approvals, stakeholder engagement and technical environmental studies to inform the mine closure plan
- Sustainability reporting in accordance with the Global Reporting Initiative
- Rehabilitation of historic exploration sites and obtaining associated government approvals for relinquishment of bonds.

Site Environmental Manager

Jan 2010 - Feb 2013

Panoramic Resources – Australia

- Brought the site into full compliance with the Environmental Licence within 1 year.
- Managed projects relating to the expansions of the current mine tailings dams including obtaining approvals under the Mining Act 1978 and Environmental Protection Act 1986.
- Managed the environmental and community aspects of three operations; Savannah Nickel Mine, Copernicus Nickel Mine (currently in care and maintenance) and the operations at Wyndham Port
- Responsible for the environment, sustainability and social reporting portfolio
- Developed productive working relationships with local government environmental agencies and non-government agencies, which assisted with the approvals process.
- Developed strategies for the recruitment and retention of local Indigenous personnel

Environmental Systems Coordinator

Jan 2007 - Jan 2010

Lihir Gold Limited – Australia

Working on site to provide technical environmental and community advice to ensure all regulatory and licence obligations were met or exceeded

- Regulatory Approvals (State and Federal Government)
- Environment and social aspects of the international cyanide management code
- Operational budgeting and bond management for mine closure
- Compliance with the legislative framework
- Community engagement

Professional Associations

- Chamber of Mines Namibia
- Women on Boards
- The Chamber of Minerals and Energy of Western Australia Industry Member – Mining, Minerals and Resources

Fun Facts:

- I can deadlift 135kg
- To keep fit I Olympic weight lift
- I run ultra Marathons & the longest run yet the fish river Canyon 65km
- I am one of 6 children - do you think that means 4 of us suffer middle child syndrome?

Words I live by:

‘The journey will bring you happiest, not the destination’
CURRICULUM VITAE

STEPHAN BEZUIDENHOUT

Name of Consultant: Stephan Bezuidenhout
Position / Profession: Managing Member & Senior Environmental Practitioner
Date of Birth: 11 April 1989
Nationality: Namibian
Professional Memberships: EAPAN, FSC Environmental Chamber, NCE, NCA, N-BiG
Email: stephan@eccenvironmental.com
Website: www.eccenvironmental.com
Contact: +264 81 262 7872

QUALIFICATIONS:

University of Pretoria: 2011 – 2012 Postgraduate Degree in Environmental Management and Analysis
University of Stellenbosch: 2007 – 2010 Bachelor of Applied Science

PROFILE:

ECC’s proudly Namibian Principal leads the ECC team as the lead Environmental Practitioner with a strong and dedicated environmental background. Mr Bezuidenhout has leading practical experience in identifying and applying legislative requirements to proposed projects. Identifying impacts and mitigations for projects within different sectors, including mining, energy, agriculture and construction.

KEY AREAS OF EXPERTISE:

Agriculture and Ecology - Aftercare, rehabilitation & restoration methodology & implementation
Forest Stewardship Council (FSC) implementation and compliance

Environmental (and social) Impact Assessments (EIAs) (ESIAs) & Environmental Management - Compiling EIA Reports and EMPs
Coordinate and review specialist studies
Review EIA reports
Environmental Management Systems (EMS)
Public Participation & Stakeholder Management

Project Management - Management of teams through Southern Africa for various projects

LANGUAGES:

<table>
<thead>
<tr>
<th>Language</th>
<th>Read</th>
<th>Write</th>
<th>Speak</th>
</tr>
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<tr>
<td>English</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

Stephan Bezuidenhout
Curriculum Vitae

Environmental Compliance Consultancy
ECC
SUMMARY OF EXPERIENCE AND CAPABILITY:
Since 2010, Stephan has been working as an environmental assessment practitioner. Stephan has a strong ecological background and has gained more than ten years’ experience in the environmental industry. As a lead practitioner, Stephan has successfully driven environmental impact assessments and compliance assessments within Southern Africa. His hands on and practical experience and knowledge of international standards, such as FSC, IFC and World Bank standards allows Stephan to advise his clients and teams constructively and effectively.

PROJECT EXPERIENCE

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>DATE</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best Practice Guide: Environmental Principles for Mining in Namibia</td>
<td>2017 - 2019</td>
<td>Team member</td>
</tr>
<tr>
<td>The FSC National Forest Stewardship Standard of Namibia</td>
<td>(2018-2020)</td>
<td>Part of the working group who compiled the National Standard for Forest Stewardship Council (FSC) in Namibia allowing for a higher rate of certification and improved compliance.</td>
</tr>
<tr>
<td>Jumbo Charcoal FSC Group Scheme Management</td>
<td>2015 - 2020</td>
<td>Jumbo Charcoal FSC Group Scheme Management</td>
</tr>
<tr>
<td>Biophysical Rehabilitation Plan for ML 42, 43, 44 and 45 as well as an overarching 5-year Biophysical Rehabilitation Plan for Namdeb</td>
<td>2018 - 2019</td>
<td>Part of the ECC team who completed the reporting and aided in the implementation of the Biophysical Rehabilitation Plans for Namdeb.</td>
</tr>
<tr>
<td>ESIA amendment for B2Gold Namibia Mining Licence (ML 169) to developed underground working for the Otjikoto (gold mine)</td>
<td>2018 - 2019</td>
<td>Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, PPP and report review).</td>
</tr>
<tr>
<td>Kunene Regional Counsel sustainable water supply Pipeline and Ancillary works</td>
<td>2017 - 2018</td>
<td>Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, PPP and report review).</td>
</tr>
<tr>
<td>ESIA application for B2Gold Namibia 10.8 megawatt PV solar upgrade to the B2Gold Power Plant</td>
<td>2017 - 2018</td>
<td>Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, PPP and report review).</td>
</tr>
<tr>
<td>ESIA application for Otjiwarongo Wastewater Treatment and Bulk Water Supply</td>
<td>2019</td>
<td>Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, PPP and report review).</td>
</tr>
<tr>
<td>ESIA for the Wastewater Treatment facilities for Gondwanan Collection</td>
<td>2019</td>
<td>Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, PPP and report review).</td>
</tr>
<tr>
<td>MAWF permit application for Water Abstraction and Discharge for Gondwanan Collection</td>
<td>2019</td>
<td>Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, PPP and report review).</td>
</tr>
<tr>
<td>EIA application for various exploration activities for Votorantim Metals Namibia Pty Ltd</td>
<td>2018 - Present</td>
<td>Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, PPP and report review).</td>
</tr>
<tr>
<td>Project Description</td>
<td>Years</td>
<td>Role Description</td>
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<td>------------------------------------------------------------------------------------</td>
<td>-------------</td>
<td>-----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Abengoa Solar SA, Kaxu Solar One 100MW Concentrating Solar Plants (CSP) Trough</td>
<td>2015-2017</td>
<td>Environmental Control Officer during commissioning and rehabilitation phases</td>
</tr>
<tr>
<td>Konkoonsies II PV Solar Energy Facility, On-site substation and a 132kV power line Northern Cape, South Africa</td>
<td>2015-2017</td>
<td>Environmental Assessment Practitioner during EIA process</td>
</tr>
<tr>
<td>Abengoa Solar SA Paulputs CSP (Pty) Ltd. 150 MW CSP Trough Northern Cape, South Africa</td>
<td>2015-2017</td>
<td>Environmental Assessment Practitioner during EIA Process</td>
</tr>
<tr>
<td>Abengoa Solar SA, Xina Solar One 200 MW CSP Trough Northern Cape, South Africa</td>
<td>2015-2017</td>
<td>Environmental Control Officer during construction phase</td>
</tr>
<tr>
<td>Soil Remediation and Commissioning report of NGALA Camp for Isondlo Project Support (IPS) (Pty) Ltd Gauteng, South Africa</td>
<td>2015</td>
<td>Lead consultant and project manager.</td>
</tr>
<tr>
<td>375 km 26-inch natural gas installation for SASOL &amp; ROMPCO Mozambique representing Worley Parsons (Pty) LTD. South Africa</td>
<td>2013-2015</td>
<td>Environmental Coordinator and Manager</td>
</tr>
<tr>
<td>Department of Water Engineering (working on a catchment management project for the Municipality of Stellenbosch)</td>
<td>2011-2012</td>
<td>Intern at Aurecon South Africa</td>
</tr>
<tr>
<td>Other projects</td>
<td>2011-2020</td>
<td>Stephan has successfully completed various other projects in the sectors of Agriculture, Mining, Energy and Tourism where he acted as the Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, PPP, and report review).</td>
</tr>
</tbody>
</table>

**PUBLICATIONS**


**CERTIFICATION:**

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and experience.

DATE: **21 / 10 / 2020**

[Signature]

**FULL NAME OF CONSULTANT**

**JACOBUS STEPHANUS BEZUIDENHOUT**
Name of Consultant: Laina Wilhelm

Profession: Assistant Environmental Practitioner

Date of Birth: 26 January 1994

Nationality: Namibian

Membership in professional bodies: EAPAN

Email: laina@eccenvironmental.com

Website: www.eccenvironmental.com

PROFILE:

Laina is ECC’s assistant environmentalist with an academic background in environmental engineering and mining. Laina aspires to contribute and express her knowledge and expertise in designing, planning and creating modern procedures and features aimed at controlling environmental impacts and hazards in Namibia.

QUALIFICATIONS:

Saint Petersburg Mining University, Russia: 2013 - 2019

Specialist Degree in Environmental Engineering in Mining

(NQF Level 8)

KEY AREAS OF EXPERTISE:

| Environmental Management | - | Compiling compliance register  
| Tenement management  
| Environmental clearance applications  
| Environmental (and social) Impact Assessments (ESIAs) | - | Conducting and assisting in report writing for various small to large scale projects  
| Compiling EIA Reports and EMPs  
| Laina Wilhelm  
| Curriculum Vitae | 1 | Environmental Compliance Consultancy  
| ECC |
Administrations work - Submissions of applications to Competent Authorities. Quotation requests and delivery of office essentials. Preparing and submission of official letters. Telephone and desk operating duties.

LANGUAGES:

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Oshiwambo</th>
<th>Russian</th>
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<tbody>
<tr>
<td>Speak</td>
<td>Excellent</td>
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<td>Read</td>
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<tr>
<td>Write</td>
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</tbody>
</table>

SUMMARY OF EXPERIENCE AND CAPABILITY:

Aug 2019 – Present: Environmental Compliance Consultancy
Position: Assistant Environmental Practitioner
- Submission of projects to competent authorities and management of application for ECC on Ministry of Environment and Tourism (EIA portal)
- Providing professional consulting services to clients
- Drafting EIA adverts and Non-Technical Summary (NTS) documents
- Assisting in the development of scoping reports
- Environmental management plans for exploration
- ESIA applications for various industries

References: Mr. Stephan Bezuidenhout & Mrs. Jessica Bezuidenhout Money
☎️: +264 81 669 7608

Jun 2018 – Aug 2018: Okorusu Fluorspar Mine
Position: Assistant Environmental Officer
- Water Level and air quality monitoring
- Environmental data collection, entry and Interpretation
- Compilation and submission of bi-Annual environmental and environmental management plan reports
- Environmental risk assessment

References: Mr Philip Hooks
☎️: +264 61 30 5444

Jul 2017 – Aug 2017: QKR-Navachab Gold Mine
Position:  Assistant Environmental Officer

- Investigating methods of treatment, remediation and/or disposal of hydrocarbon waste products
- Contamination mapping
- Air monitoring and water monitoring
- Sampling of tailings
- Compilation of environmental reports

References: Mrs Marietjie Bell
☎: +264 64 55 2083

PROJECT EXPERIENCE

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>DATE</th>
<th>ROLE</th>
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<tr>
<td>Skorpion Zinc (Namzinc) zinc sulphide and sulphuric acid transportation and storage facility ESIA applications</td>
<td>2021</td>
<td>Environmental Assessment Practitioner during EIA Process and project assistant</td>
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<tr>
<td>ESIA applications for Votorantim Metals (Pty) Ltd various exploration activities</td>
<td>2019-2021</td>
<td>Environmental Assessment Practitioner during EIA Process and project manager</td>
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<td>Jumbo Fair Trade Premium Committee - Traidcraft</td>
<td>2020</td>
<td>Group advisor and project manager</td>
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<td>Jumbo Group scheme external audits</td>
<td>2020</td>
<td>Assistant auditor and project team member</td>
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<tr>
<td>Compliance and legal register for Lepidico</td>
<td>2020</td>
<td>Environmental Assessment Practitioner and project team member</td>
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<td>ESIA applications for Nuvella Namibia Lodges</td>
<td>2020</td>
<td>Environmental Assessment Practitioner during EIA Process and project manager</td>
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<td>MEFT / GIZ Bush Control &amp; Biomass Utilisation (BCBU) training</td>
<td>2020</td>
<td>Team member</td>
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<tr>
<td>ESIA applications for Kuiseb Copper Company (Pty) Ltd various exploration activities</td>
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<td>ESIA applications for absolute tours Southern Cross Adventure Lodges</td>
<td>2019</td>
<td>Environmental Assessment Practitioner during EIA Process and project manager</td>
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</table>

CERTIFICATION:
I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and experience.

DATE: __11__/__02__/__2021__

FULL NAME OF CONSULTANT: LAINA WILHELM