




ECC-88-286-REP-14-D

# ENVIRONMENTAL SCOPING REPORT PLUS IMPACT ASSESSMENT

## EXPLORATION ACTIVITIES ON EPL 7341 FOR BASE AND RARE METALS, INDUSTRIAL MINERALS AND PRECIOUS METALS IN THE OSHIKOTO AND OTJOZONDJUPA REGIONS

PREPARED FOR VOTORANTIM METALS (PTY) LTD

AUGUST 2020

PO BOX 91193 Windhoek Namibia
Environmental Compliance Consultancy CC
CC/2013/11404

# TITLE AND APPROVAL PAGE

| | |
|---|---|
| **Project Name:** | Exploration activities on EPL 7341 for base and rare metals, industrial minerals and precious metals in the Oshikoto and Otjozondjupa Regions. |
| **Project Number** | ECC-88-286-REP-14-D |
| **Client Name:** | Votorantim Metals Namibia (Pty) Ltd |
| **Ministry Reference:** | N/A |
| **Status of Report:** | Final for Government Submission |
| **Date of issue:** | August 2020 |
| **Review Period** | NA |

**Environmental Compliance Consultancy Contact Details:**
We welcome any enquiries regarding this document and its content: please contact:

**Stephan Bezuidenhout**
Environmental Consultant & Practitioner
Tel: +264 81 699 7608
Email: stephan@eccenvironmental.com
www.eccenvironmental.com

**Jessica Bezuidenhout Mooney**
Environmental Consultant & Practitioner
Tel: +264 81 699 7608
Email: jessica@eccenvironmental.com
www.eccenvironmental.com

**Confidentiality**


***Please note at ECC we care about lessening our footprint on the environment; therefore all documents are printed double sided.***

## EXECUTIVE SUMMARY

Votorantim Metals Namibia (Pty) Ltd (herein referred to as Votorantim or the proponent), intend to undertake exploration activities on Exclusive Prospecting Licence (EPL) 7341 for base and rare metals, industrial minerals, and precious metals in the Oshikoto and Otjozondjupa Regions. About (90 % of the EPL lies the Oshikoto Region and 10% in the Otjozondjupa Region, in an area east of the Tsumeb Town.

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 Impact Assessment (EIA) 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) shall be submitted to the competent authority as part of the application for the environmental clearance certificate.

The proposed exploration activities on EPL 7341 include soil sampling and analysis, geophysical surveys (audio-magnetotelluric, induced polarization and magnetic ground surveys), geological mapping, installations and development of exploration drill holes in selected target areas. Some limited bush-clearing with exclusions of specially protected plant species will be carried out, for the creation of working areas and access tracks where necessary. All sites of activity will be managed according to stringent environmental requirements that Votorantim upholds in its exploration projects. Access agreements will be entered into with all farmers / holders of private ground.

The explorations activities will commence as soon as an environmental clearance certificate has been granted by the Environmental Commissioner and activities are expected to be conducted over a 3-years period, which is the duration of the mineral 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 be assessed in a separate and detailed environmental impact assessment at the appropriate stage.

EPL 7341 is located within the trees and shrubs savanna biome, with the vegetation type dominated by Acacia trees, shrubs as well as the thornbush woodland (Mendelsohn *et al.*, 2002). The vegetation structure in the proposed area can be broadly classified as woodland. The area supports a high terrestrial diversity of animal and plant life, with the plant diversity in the area supporting more than 500 species.

Through the scoping process, the surrounding environment was assessed by undertaking desktop reviews. The impacts of exploration activities with respect to airborne dust are expected to be limited to vehicular traffic. 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.

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.

Water is a scarce and vital resource in Namibia and, as such, must always be treated with caution. EPL 7341 is located on the Owambo Groundwater Basin. The area is underlain by dolomites, which show a high potential of groundwater with an increased potential where fractures and faults occur on a local scale. The aquifer is also reliable, as it is frequently recharged and water quality is generally of a high standard (Mendelsohn *et al*., 2002). The potential for contamination from the proposed activities is regarded as minimal. Protection of water quality is addressed in the EMP.

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, neighbours, tourists and visitors. Through further investigation, it was determined that the visual disturbance and loss of 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.

**On this basis, it is of the opinion of ECC that an environmental clearance certificate could be issued, on conditions that the management and mitigation measures specified in the EMP are implemented and adhered to.**

**CONTENTS**

**TABLES**

FIGURES

# DEFINITIONS AND ABBREVIATIONS

| | |
|---|---|
| AMT | Audio-Magneto telluric |
| ECC | Environmental Compliance Consultancy |
| DEA | Directorate of Environmental Affairs |
| EIA | Environmental Impact Assessment |
| EMP | Environmental Management Plan |
| EPL | Exclusive Prospecting Licence |
| GDP | Gross Domestic Product |
| HIV/AIDS | Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome |
| IP | Induced Polarization |
| I&AP | Interested and affected parties |
| IFC | International Finance Cooperation |
| MAWLR | Ministry of Agriculture, Water and Land Reform |
| MET | Ministry of Environment and Tourism |
| MEFT | Ministry of Environment, Forestry and Tourism |
| MHSS | Ministry of Health and Social Services |
| NDP5 | Fifth National Development Plan |
| MME | Ministry of Mines and Energy |
| NTS | Non-Technical Summary |
| RAB | Rotary Air Blast (drilling) |
| RC | Reverse Circulation (drilling) |
| TB | Tuberculosis |
| WHO | World Health Organization |

# 1 INTRODUCTION

## 1.1 PURPOSE OF THIS REPORT

The purpose of this report is to present the findings of the environmental assessment for the proposed project. The proposed project is to undertake mineral exploration activities on EPL 7341 located in the Oshikoto and Otjozondjupa Regions of Namibia for base and rare metals, industrial minerals and precious metals.

The EIA has been undertaken in terms of the requirements of the Environmental Impact Assessment Regulations, No. 30 of 2012, gazetted under the Environmental Management Act, No.7 of 2007 (referred to herein as the EIA Regulations).

## 1.2 BACKGROUND OF THE PROPOSED PROJECT

Votorantim Metals Namibia (Pty) Ltd propose to undertake mineral exploration activities on EPL 7341 for base and rare metals, industrial minerals and precious metals in the Oshikoto Region, extending slightly into the Otjozondjupa Region (refer to Figure 1).

Access to the project areas is approximately 10km north of Tsumeb on the M75 road, or alternatively, southeast of Tsumeb on the C42 road towards Grootfontein. Tsumeb is located at the intersection of the B1 and the C42 roads; the former heading northeast from Otjiwarongo and the latter heading northwest from Grootfontein (Figure 1). Tsumeb is, since its founding, primarily a mining town.

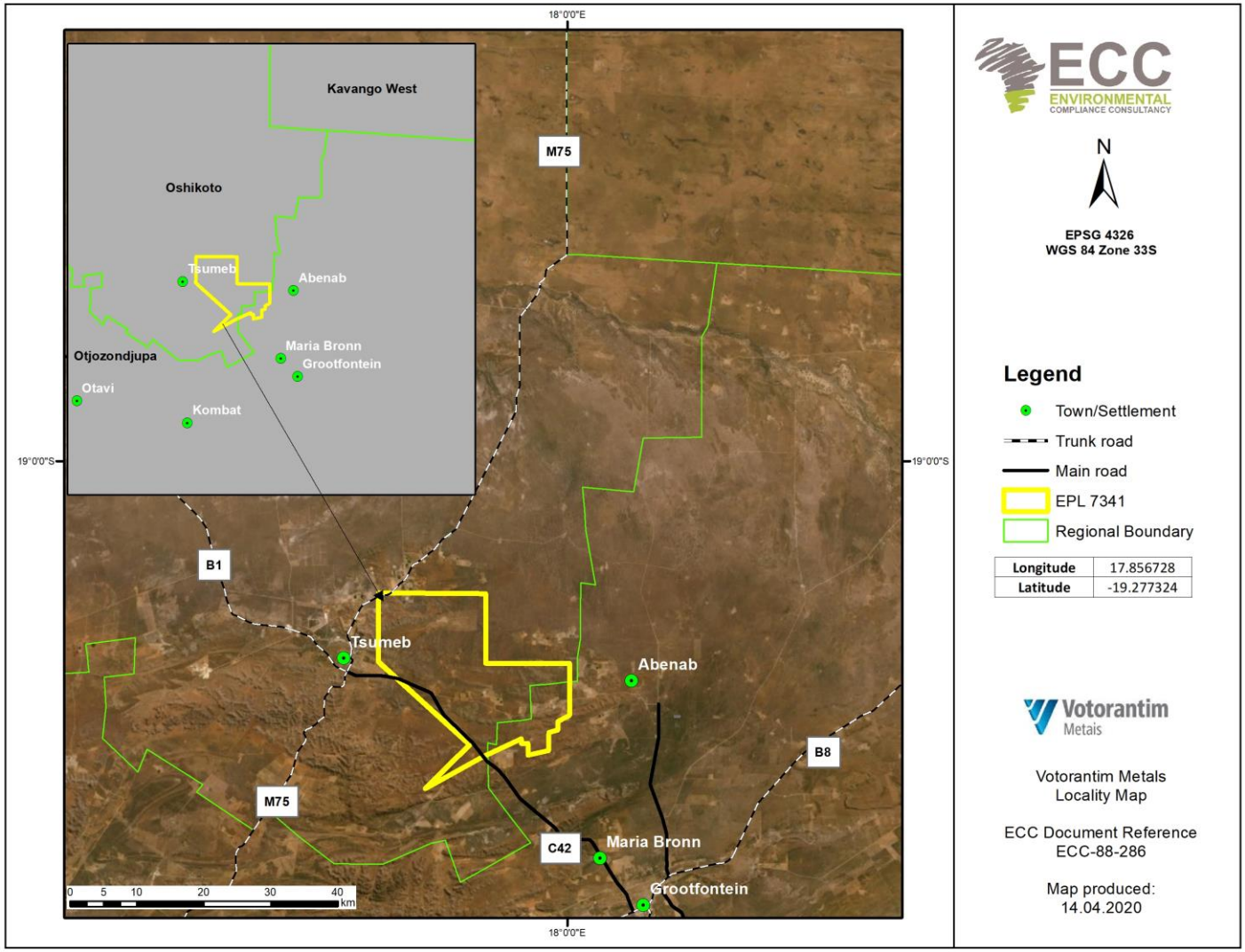



**FIGURE 1 - LOCATION OF EPL 7341**

## 1.3 SCOPE OF WORK

This assessment has been prepared by ECC. 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. An EMP has been developed to provide a management framework for the planning and implementation of exploration activities. The EMP provides exploration standards and arrangements to ensure that the potential environmental and social impacts are mitigated, prevented and/or minimised as far as reasonably practicable, and that statutory requirements and other legal obligations are fulfilled.

This report plus appendices will be submitted to the Ministry of Mines and Energy (MME) and the Directorate of Environmental Affairs (DEA) at the Ministry of Environment, Forestry and Tourism (MEFT) for review as part of the applications for an environmental clearance certificate.

## 1.4 ENVIRONMENTAL CONSULTANCY

ECC, a Namibian consultancy (registration number Close Corporation 2013/11401), has prepared this scoping report and impact assessment 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:

**Environmental Compliance Consultancy**

PO BOX 91193
Klein Windhoek, Namibia

Tel: +264 81 669 7608
Email: info@eccenvironmental.com

## 1.5 THE PROPONENT OF THE PROPOSED PROJECT

The EPL ownership and details of the proponent are set out in Table 1.

**TABLE 1 - PROPONENTS DETAILS**

| CONTACT | POSTAL ADDRESS | EMAIL ADDRESS | TELEPHONE |
|---|---|---|---|
| VOTORANTIM METALS NAMIBIA (PTY) LTD<br>Mr Eckhart Freyer | P O Box 2184, Windhoek, Namibia | efreyer@iway.na | +264 81 124 732 |

## 1.6 ENVIRONMENTAL 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 Act and its regulations are as follows:

**MINING AND QUARRYING ACTIVITIES**

- 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.
    - The proposed project requires a licence for the construction of temporal exploration campsites, drill sites and access roads.

- Other forms of mining or extraction of any natural resources whether regulated by law or not
    - Minerals will be sampled and explored for within the EPL 7341.

- Resource extraction, manipulation, conservation, and related activities
    - The proposed project will explore for base rare metals, industrial minerals as well as precious metals.

**WATER RESOURCE DEVELOPMENT**

- The abstraction of ground or surface water for industrial or commercial purposes
    - Due to the drilling of exploration boreholes, the abstraction of groundwater is possible, although it is intended that water will be obtained from existing boreholes in the proposed project area.

**FORESTRY ACTIVITIES**

- The clearance of forest areas, deforestation, aforestation, timber harvesting or any other related activity that requires authorisation in term of the Forest Act, 2001 (Act No. 12 of 2001) or any other law.
    - The proposed project may require limited vegetation clearing for access tracks and site camps.

## 1.7 Report Structure

The scoping report plus impact assessment is structured as per the contents set out in Table 2.

**TABLE 2 - SECTIONS OF THE ENVIRONMENTAL SCOPING REPORT AND IMPACT ASSESSMENT**

| SECTION | TITLE | CONTENT |
|---|---|---|
| - | Executive summary | Executive summary of the EIA |
| - | Definitions and abbreviations | A list of definitions and abbreviations used throughout the report |
| 1 | Introduction | An introduction of the EIA and background information on the proponent |
| 2 | Approach to the Impact Assessment | Provides the assessment methodology applied to the EIA |
| 3 | Regulatory framework | Describing the Namibian, international and other relevant environmental regulatory frameworks applicable to the project |
| 4 | Project description | Technical description of the project |
| 5 | Environmental and Social Baseline | Describing the existing environment through the analysis of the baseline data regarding the existing natural and socio-economic environment |
| 6 | Identification and Evaluation of Impacts | Prediction of the potential environmental and social impacts arising from the project, the assessment of impacts including residual impact. The chapter also outlines the proposed management strategies for monitoring commitments to ensure the actual and potential impacts on the environment are minimised to "As Low As Reasonably Practicable" (ALARP), which informs the EMP |
| 7 | Impact Assessment Findings and proposed mitigation and management measures | The categorisation of identified impacts and the proposed mitigation and management measures. |
| 8 | Environmental Management Plan | A short description of the EMP used to take pro-active action by addressing potential problems before they occur and outline mitigation measures for each impact |
| 9 | Conclusion | A synopsis of the main findings of the assessment and recommended action |
| 10 | References | – A list of references used for this report |
| 10-13 | Appendices A-E | A list of appendices used for this report<br>– Appendix A: Environmental Management Plan<br>– Appendix B: Non-Technical Summary<br>– Appendix C: Evidence of Public Consultation,<br>– Appendix D: ECC CV's |

# 2 APPROACH TO THE IMPACT ASSESSMENT

## 2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT ASSESSMENT

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

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

## 2.2 THE ASSESSMENT PROCESS

The EIA methodology applied to this assessment has been developed using the IFC standards and models (IFC, 2012; 2017), in particular Performance Standard 1: '*Assessment and management of environmental and social risks and impacts*' 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 EIA and EMP (GRN, 2008) as well as the international and national best practice documents to our disposal and over 25 years of combined EIA experience, were also drawn upon in the assessment process.

An impact assessment is a formal process in which the effects of certain types of development on the biophysical, social and economic environments are identified, assessed and reported so that the effects can be taken into account when considering whether to grant development consent or to provide financial support. Final mitigation measures and recommendations are based on the cumulative experience of the consulting team and the client, taking into consideration the potential environmental and social impacts. The process followed through the basic assessment is illustrated in Figure 2 and detailed further in the following sections.

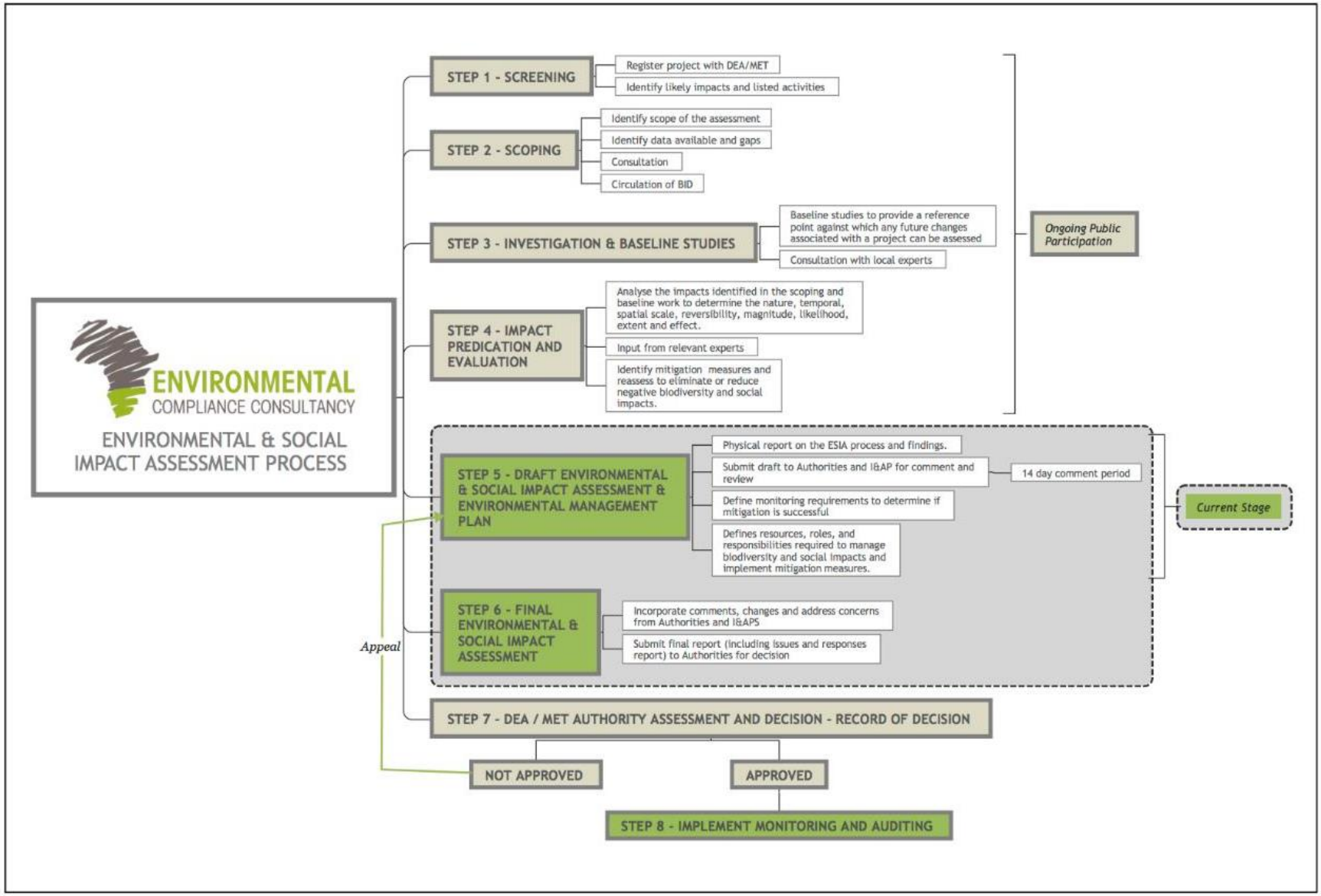



**FIGURE 2 - ECC SCOPING PROCESS**

## 2.3 METHODOLOGY FOR THE IMPACT ASSESSMENTS

Desktop studies on the national database are undertaken as part of the scoping stage 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. This is verified through site data collection.

The environmental and social topics that may be affected by the proposed project are described in this section. The baseline focuses on receptors, which could be affected by the proposed project.

## 2.4 SCREENING OF THE PROPOSED PROJECT

The first stages of the EIA process are to register the project with the competent authority and undertake a screening exercise. The screening exercise determines whether the proposed project is considered as a Listed Activity in terms of the Environmental Management Act, No. 7 of 2007 and associated regulations, and if significant impacts may arise. The location, scale and duration of project activities will be considered against the receiving environment.

It was concluded that an EIA (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.

## 2.5 SCOPING OF THE ENVIRONMENTAL ASSESSMENT

The purpose of the scoping stage in the EIA process is to identify the scope of assessment, undertake a high-level assessment to identify potential impacts, and confirm if further investigation is required to assign the severity of potential significant effects and allocate appropriate mitigation.

This report presents the findings of the scoping phase and high-level assessment and confirms that no further investigation is required.

## 2.6 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:

- Desk-top studies
- Consultation with stakeholders, and
- Engagement with Interested and Affected Parties (I&APs). See Appendix C.

## 2.7 EIA CONSULTATION

Public participation and consultation are a requirement in terms of Section 21 of the Environmental Management Act, No. 7 of 2007 and its regulations for a project that requires an environmental clearance certificate. Consultation is a compulsory and critical component in the EIA process, aimed at 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 EIA and timeframes involved, and
- Establish a platform for ongoing consultation.

### 2.7.1 INTERESTED AND AFFECTED PARTIES

All relevant authoritative bodies were identified and listed as I&APs, as well as organisations and individuals with an implied interest. Other I&APs were identified through invitations such as the newspaper advertisements and site notices. To all of these stakeholders a formal letter was sent. The letter and the list of registered I&APs are provided in Appendix C.

### 2.7.2 NON-TECHNICAL SUMMARY

The Non-Technical Summary (NTS) presents a high-level description of the proposed project; sets out the EIA 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 registered I&APs and the NTS can be found in Appendix B.

### 2.7.3 NEWSPAPER ADVERTISEMENTS

Notices regarding the proposed project and associated activities were circulated in two newspapers namely the 'Namibian' and the 'Informante' on 24th June and 1st July 2020 (see Appendix C). The purpose of this was to commence the consultation process by informing the public about the project and enabling I&APs to register any comments and interest raised for the project.

### 2.7.4 SITE NOTICES

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

### 2.7.5 CONSULTATION FEEDBACK

The I&APs were encouraged to provide constructive input during the consultation periods. Matters of concern raised during the initial round of consultation are presented in Appendix C.

The public review of the scoping report and the EMP were set between 15 -22 July 2020. No issues or concerns were raised by the I&APs during consultation period.

## 2.8 DRAFT EIA AND EMP

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

The EIA report documents the findings of the assessment process, provides stakeholders with the opportunity to comment and 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 EIA report focuses on the significant impacts that may arise from the proposed project as described in Step 4 (Figure 2). These impacts are discussed in Chapter 7.

This EIA report was open to stakeholders and I&APs for consultation for a period of 7 days (15/07/2020 – 22/07/2020), meeting the mandatory requirement of 7 days as 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 was to ensure all stakeholders and I&APs have the opportunity to provide final comments on the assessment process and findings and register their concerns. However, none of the I&APs consulted throughout this process raised any issues or concerns.

## 2.9 FINAL EIA AND EMP

The final EIA report and associated appendices will be available to all stakeholders on the ECC website www.eccenvironmental.com. All I&APs will be informed via email. The EIA report and appendices will be formally submitted to the Office of the Environmental Commissioner, DEA as part of the application to for an environmental clearance certificate.

## 2.10 AUTHORITY ASSESSMENT AND DECISION MAKING

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

## 2.11 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.

## 3.1 NATIONAL LEGISLATION

**TABLE 3 - LEGAL COMPLIANCE**

| NATIONAL REGULATORY REGIME | SUMMARY | APPLICABILITY TO THE PROJECT |
|---|---|---|
| **Constitution of the Republic of Namibia of 1990** | 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:<br><br>*"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."* | 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 recourses to that could contribute to the mining sector in Namibia. |
| **Minerals (Prospecting and Mining) Act, No. 33 of 1992** | Provides for the reconnaissance, prospecting and mining for, and disposal of, and the exercise of control, minerals in Namibia.<br>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"*<br>Section 50 sets out that in addition to any term and condition contained in a mineral agreement and any term and condition contained in any mineral licence, it shall be a term and condition of any mineral licence that the holder of such mineral licence shall:<br>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.<br>Section 52 sets out that the holder of a mineral | The proposed activity is prospecting for minerals; hence it requires an EIA 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.<br>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.<br>The project shall be compliant with Section 76. With regards to records, maps, plans and financial statements, information, reports, and returns submitted.<br><br>As the proponent will need to access privately owned land the proponent will ensure Sections 50 and 52 are complied with. |

| NATIONAL REGULATORY REGIME | SUMMARY | APPLICABILITY TO THE PROJECT |
|---|---|---|
| | licence shall not exercise any rights conferred upon such holder by this Act or under any terms and conditions of such mineral licence<br>(a) In, on or under any private land until such time as such holder.<br>(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. | |
| **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.<br>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.<br>The MEFT is responsible for the protection and management of Namibia's natural environment. The Department of Environmental Affairs under the MEFT is responsible for the administration of the EIA process. | This environmental scoping report (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. |
| **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".*<br><br>The Department of Water Affairs within the Ministry of Agriculture Water and Land Reform (MAWLR) is responsible for the administration of the act.<br><br>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.<br><br>Measures to minimise potential groundwater and surface water pollution are contained in the EMP.<br><br>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 |

| NATIONAL REGULATORY REGIME | SUMMARY | APPLICABILITY TO THE PROJECT |
|---|---|---|
| | | 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 7341 site. Measures in the EMP set out methods to avoid soil erosion. |
| **National Heritage Act, No. 27 of 2004.** | The Act provides provision of the protection and conservation of places and objects with heritage significance.<br>Section 55 stipulates that exploration companies must report any archaeological findings to the National Heritage Council after which a heritage permit needs to be issued | There might be potential for heritage objects to be found on site, therefore the stipulations in the Act have been taken into consideration and are incorporated into the EMP.<br>Section 55 compels exploration companies to report any archaeological findings to the National Heritage Council after which a permit needs to be issued before the find can be disturbed. In cases where heritage sites are discovered the 'chance find procedure' will be used |

**TABLE 4 - NATIONAL POLICIES**

| NATIONAL REGULATORY REGIME | SUMMARY | APPLICABILITY TO THE PROJECT |
|---|---|---|
| **Vision 2030** | 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.<br>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. | The planned project shall meet the objectives of Vision 2030 and shall contribute to the overall development of the country through continued employment opportunities. |
| **The Fifth National** | NDP5 is the fifth in the series of seven five-year national development plans that outline the | The planned project supports meeting the objectives of NDP5 by |

| NATIONAL REGULATORY REGIME | SUMMARY | APPLICABILITY TO THE PROJECT |
|---|---|---|
| **Development Plan (NDP5)** | objectives and aspiration of Namibia's long-term vision as expressed in Vision 2030. NDP5 is structured on the pillars of economic progression, social transformation, environmental sustainability and good governance. Under the social transformation pillar is the goal of improved education. | creating opportunities for employment to the nearby community and the Namibian nation. |
| **Labour Act, No. 11 of 2007** | The Labour Act, No. 11 of 2007 (Regulations relating to the Occupational Health & Safety provisions of Employees at Work promulgated in terms of Section 101 of the Labour Act, No. 6 of 1992 - GN156, GG 1617 of 1 August 1997) | The 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. |

## 3.2 POLICIES

### 3.2.1 MINERALS POLICY

The Minerals Policy was adopted in 2002 and sets guiding principles and direction for the development of the Namibian mining sector while communicating the values of the Namibian people. 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 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 EIA process and the production of this report.

## 3.3 PERMITS AND LICENCES

### 3.3.1 EXCLUSIVE PROSPECTING LICENCE

The EPL 7341 was granted on the 20th of February 2020 and expires on the 19th of February 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 and/or recommendations for consideration by the Minerals (Prospecting and Mining Rights) Committee (MPMRC). Amendments and revisions may be required for the EIA 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 license that may be relevant to the proposed projects are outlined in Table 5.

**TABLE 5 - PERMITS AND LICENCES REQUIREMENTS**

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

# 4 PROJECT DESCRIPTION

## 4.1 NEED FOR THE PROPOSED PROJECT

The mining sector in Namibia significantly contributes to the country's Gross Domestic Product (GDP), government tax receipts and export revenues. For this reason, exploration activities are encouraged in Namibia and the vision of the Minerals Policy being to "further attract investment and enable the private sector to take the lead in exploration, mining, mineral beneficiation and marketing" supports the development. The proposed project is in line with this vision and has the potential to create employment in local communities in the Oshikoto Region. In the event that exploration activities are successful, and a resource can be defined, with commercially viable mineral concentrations, exploration operations can potentially transcend into mining operations, which can result in socio-economic development in the area.

## 4.2 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 remote sensing from satellites to more invasive methods such as extensive close-spaced drilling. The methods used shall be determined, based on the exploration programme, which is further designed once more information and data is obtained. At this stage of the project, the exploration activities are yet to be finalised and therefore a range of options remain.

Once the exploration programme is further defined, the most suitable options and methods shall be identified to ensure the impacts on the environment and society are minimised.

### 4.2.1 NO-GO ALTERNATIVE

Should exploration activities within EPL 7341 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.

## 4.3 PROPOSED EXPLORATION ACTIVITIES

The exploration activities on EPL 7341 will include some or all of the following methods: aerial or remote sensing, geological mapping, geochemical sampling, geophysical surveys and drilling. Details of these methods are described below. Ground-based exploration techniques are inevitable in the

search of base, rare and precious metals. Data obtained by remote-sensing data are also used to select target areas.

Existing tracks will be used as far as reasonably practical. In the event that new tracks are required they will be developed by hand or by use of a bulldozer, terrain dependent. Vegetation clearance shall be required for drill access tracks, drill pads and for the geophysical survey team and drillers' temporary camps. This will also be carried out by hand or bulldozer depending on the bush thickness and the required clearance distances.

- **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 existing faults and fractures that 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.

- **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.

- **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.

- **GEOPHYSICAL GROUND SURVEYS** will be undertaken to collect data that give an indication of rock properties, particularly at depth. They are also used to map the geological structures. Induced Polarization (IP) surveys will be undertaken involving high voltage electrical currents measured via electrodes in the ground 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 50m along a survey line. Copper sulphate solution will be used to improve the conduction of electrodes during the IP survey. During Audio-Magneto telluric (AMT) surveys the same lines and small holes in the ground will be used, but without the application of high voltage electrical currents.

- **DIAMOND DRILLING** entails the use of a diamond drill in order to obtain core samples. Bio-degradable drill additives will be used during diamond core drilling. Soil, rock and drill core samples will be stored at the site office. Exploration activities are usually undertaken in phases, with periods of no field activity between them, which allows for awaiting analytical results, and the integration and interpretation of data to decide on the next phase of exploration.

Diamond drilling and possible Rotary Air Blast (RAB) drilling will occur and the number of holes and aerial extent will be determined by the geochemical and geophysical anomalies obtained. AMT, IP and magnetic ground surveys will be undertaken to measure chargeability, conductivity and magnetic susceptibility of the rocks.

Vegetation clearing will be limited to clearing for access tracks and site camps, should additional areas be cleared for exploration activities the Forest Act, No. 12 of 2001 and its regulations will be complied with (the relevant forestry permits will be applied for if required). Any established or large trees or specially protected plant species shall not be removed, and access tracks will be routed to avoid these wherever possible and permits will be obtained as necessary. Impacts and effects of the geochemical surveys and drilling programmes are likely to be low.

### 4.3.1 EXPLORATION SCHEDULE

The exploration activities are executed and managed from the Votorantim temporary exploration office in Tsumeb, which will be hired to serve as an office and logistical base. Field exploration activities, using techniques as discussed above, are anticipated to be carried out over the licence validity period. Remote sensing studies and planning phases for the prospecting programme will require 2-6 months. Geochemical sampling will be undertaken concurrently with geological mapping for approximately 2-6 months. Geophysical surveys will then be carried out over a period of about two (2) months after which the project will advance to reverse circulation or core drilling.

The duration of drilling programs is variable, and usually depends on the information that is gained from drilling. Applications for the environmental clearance certificate, along with all required permits will be submitted during this period should a second renewal of the EPL be required.

### 4.3.2 EQUIPMENT AND MATERIALS

During the exploration phase double and single cab vehicles will be used to transport workers to, from and around the site. Field activities will be organized from Tsumeb. Contractor's camp infrastructure may include tents and chemical toilets, to be temporary set up on the site. A drill rig (track-mounted) will be brought to site for core drilling, along with a water truck and supporting equipment (rods truck, water and fuel bowsers, and RC compressor) for use during drilling. Drilling equipment, diesel fuel and consumables shall be brought to the exploration site to support exploration activities as and when needed.

### 4.3.3 WORKERS AND ACCOMMODATION

Ten possible job opportunities are foreseen during the exploration phase and workers will be sourced from the nearest towns such as Tsumeb. 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 Tsumeb and be transported to and from the site. The proponent will provide transport. However, during the latter part of the prospecting (drilling) workers may be required to stay at the exploration site in campsites or in existing housing rented from the property owner. The proponent shall provide suitable living facilities during this period.

### 4.3.4 Resource use and waste management

Water will be required for various uses including human consumption during the planned exploration activities and to support any of the exploration activities such as diamond drilling. The water will most likely be sourced from an existing water source on site, after permission has been obtained from the farm owner, of which they will be compensated for water usage. There is generally no shortage of water in the Tsumeb area.

Waste produced on site will include sewerage and solid waste such as packaging material. Wastewater (e.g. water with drill additives) used during drilling is recycled, contained and allowed to evaporate after use. The drill-sludge is disposed of at the Tsumeb municipal waste disposal site. In case of provision of the 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 waste will be discharged on site.

### 4.3.5 Site 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.

# 5 ENVIRONMENTAL AND SOCIAL BASELINE

## 5.1 INTRODUCTION

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 as part of the scoping stage 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. This section also incorporates consultation and public participation of the proposed project.

## 5.2 THE PROJECT SITE AND LOCATION

EPL 7341 was granted by the MME on the 20th of February 2020 for base and rare metals, industrial minerals and precious metals. The EPL is located slightly into the Otjozondjupa Region, and largely extended into the Oshikoto Region. The region has a trunk road which links the region to both the south and the north of the country. Tsumeb is the nearest town to the proposed project area.

## 5.3 SITE AND SURROUNDING ENVIRONMENT

Tsumeb is located at the intersection of the B1 and the C42 roads. The B1 connects Tsumeb with Otjiwarongo to the south and Oshivelo to the north, while the C42 connects Tsumeb with Grootfontein. The M75 connects Tsumeb with Tsintsabis. A number of district roads crisscross the Oshikoto Region, while a network of farm roads and tracks provide access to the EPL (Figure 3).

Tsumeb, which presently accommodates and estimated 15,000 residents, was originally home to the San (Bushmen), the original inhabitants of Namibia. Here they discovered deposits of copper ore and were able to extract copper from the deposits that were found close to the surface. This led to a lively trade with copper in ancient times.

EPL 7341 overlaps with 40 commercial farms (Figure 4). The farms have well-kept boundary fences with tracks, which can be used for access and movements during the exploration activities. The EPL lies in a region that receives higher annual rainfall than the rest of the country (more than 550 ml annually), which allows intensive agriculture. Despite the prominence of crop production the mineral importance of the Otavi Mountains dominates (Info-Namibia, 2020).

Pro-active communication between the proponent, farmers and neighboring property owners, need to be maintained when planning to access the EPL and to keep them updated on exploration activities.

Tourism attractions include a museum of local history, which was established in 1975, that provides detailed information on the mining history of Tsumeb and its surroundings, the Hoba meteorite near Grootfontein, Dragon's Breath (an underground lake), the Ghaub Caves and the Otjikoto Lake (a sinkhole filled with water).

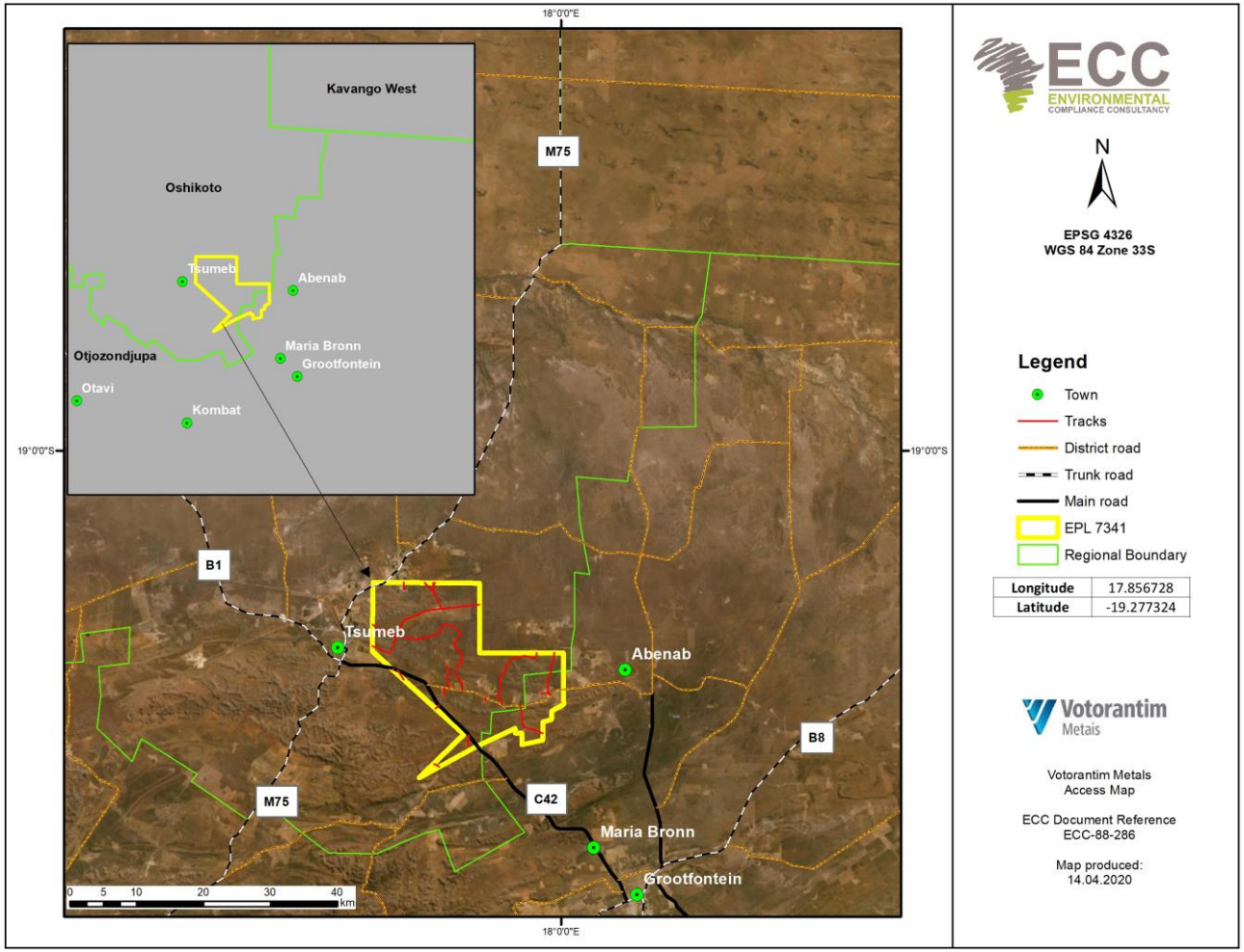



**FIGURE 3 - ACCESSIBILITY MAP OF EPL 7341**

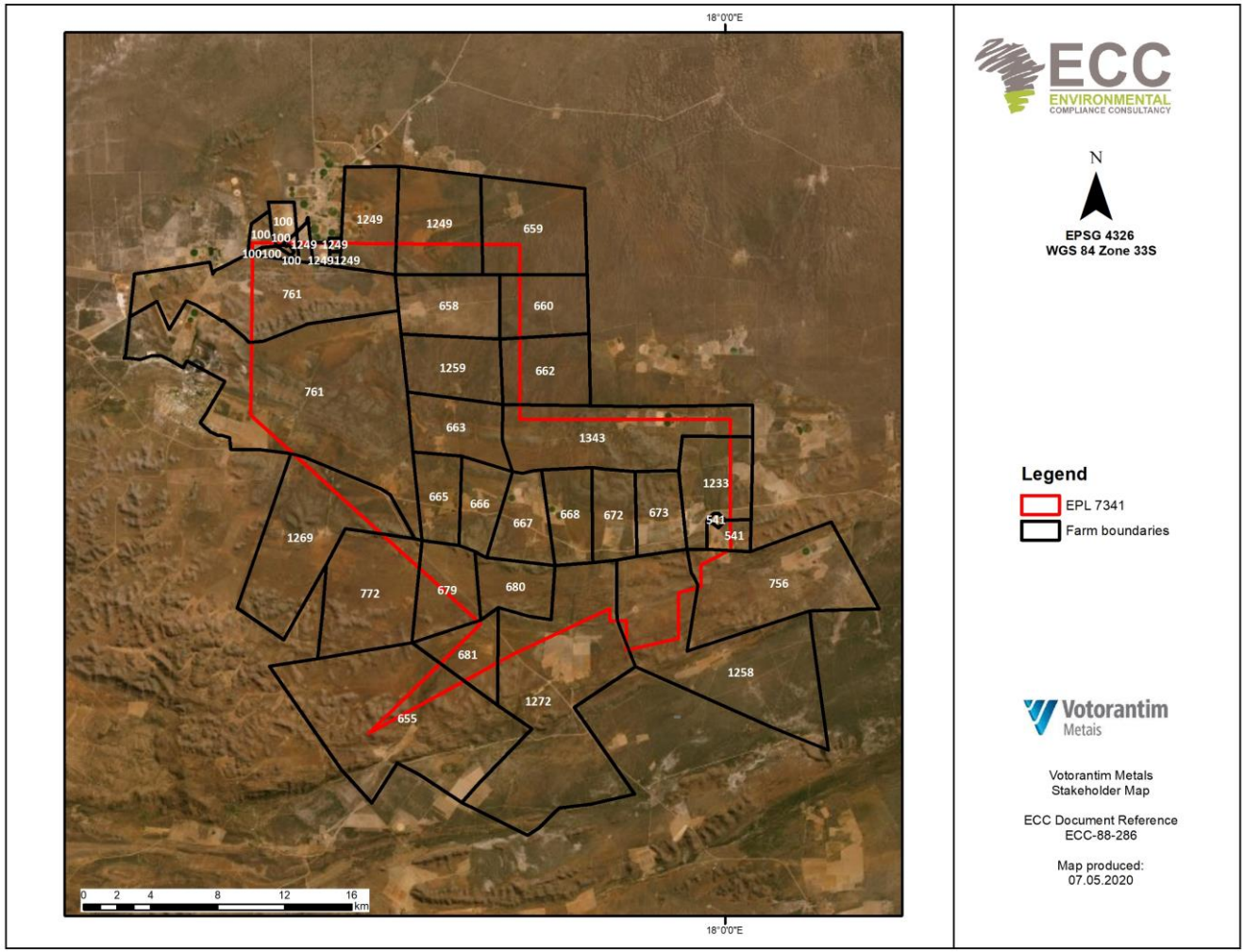



**FIGURE 4 - LOCATION OF EPL 7341 RELATIVE TO NEIGHBOURING FARMS**

## 5.4 CLIMATE

Namibia spans a zone roughly between 17° and 29° south of the equator, a belt on the globe which is dominated by subtropical high pressure cells of which the result is prevailing dry weather. Except for the narrow zone covered by the Namib Desert along the coast where the climate can be described as arid, and the northeast quarter of the country where the climate can be described as sub-humid, the greatest part of Namibia has a semi-arid climate. During summer the prominence of the high pressure cells weakens, and moist air from the inter-tropical convergence zone is allowed to bring a rainy period which is the longest in the northeast and the shortest in the extreme west and south.

The Oshikoto and Otjozondjupa Regions where the EPL 7341 is located present an average annual temperature that varies between 20°C and 22°C (Mendelsohn *et al*., 2002). The hot season lasts for 4 months, from September to January, with an average daily high temperature of 32 - 34°C. The hottest month of the year is October, when maximum temperatures exceed 34°C. Average minimum temperatures range between 4 and 8°C (Mendelsohn *et al*., 2002). The cool season lasts for three months, from May to July, with an average daily high temperature below 26°C. The coldest month of the year is July, with an average low of 7°C.

The study area has a semi-arid climate and receives between 550 – 600 mm rainfall per annum with a variation coefficient of <30% (Mendelsohn, *et al.,* 2002). Rainfall events are limited to the summer months, mainly between November and April, in the form of sudden thunderstorms often associated with heavy downpours. Potential evaporation can reach 1,960 mm per year. Relative humidity is low, rarely exceeding 20% in winter but may reach 85% in summer before or after thunderstorm build-up. The number of rainy days per annum (>1mm) is 45 – 50. Predominant wind direction is from the east, with an average wind speed of 3.0 mph (4.8 kilometers per hour), and a calm of 26.6% (Figure 5) (Iowa State University, 2020).

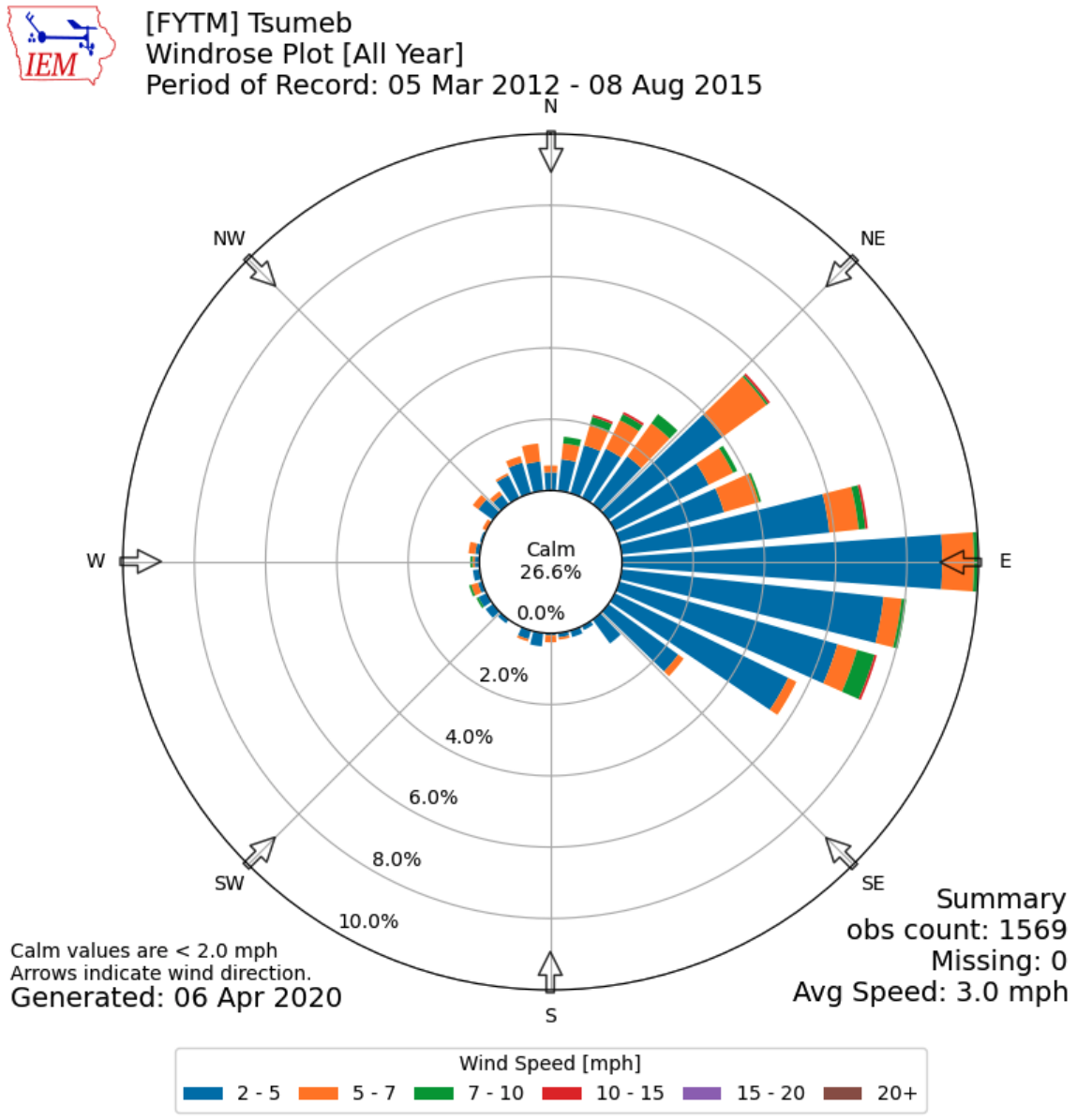



**FIGURE 5 - PREVAILING WIND DIRECTION AND WIND SPEED IN THE AREA OF THE PROPOSED PROJECT (SOURCE: IOWA STATE UNIVERSITY, 2020).**

## 5.5 GEOLOGY AND GEOMORPHOLOGY

The geology of EPL 7341 generally comprises units of the Otavi Group, which is hosted within a thick sequence of Precambrian (+660 million years old) carbonate rocks that form the Northern Carbonate Platform. These shelf deposits, made up of algal, stromatolitic and oolitic dolomites and limestones with interspersed shale / mudstone horizons, have been divided into the Lower Abenab and Upper Tsumeb Subgroup carbonate sequences. They are underlain by the basement rocks of the Grootfontein Granite complex and intermediate Nosib Group siliclastic sediments as well as being unconformably overlain in places by the younger Mulden Group (Tschudi Formation) and arkosic sandstones (retrieved from www.tsumeb.com, 2015). Formations of the Otavi Group form part of the Damara Supergroup, which covers the largest part of the northwest quarter of Namibia. These formations are oriented in a predominantly SW-NE direction, are part of the Damara Sequence and are 850 – 600 million years old (Mendelsohn et al, 2002). The entire EPL 7341 is located within the mountainous area of the Otavi Group (Figure 6).

The dolomites of the Otavi Group crop out in a series of east-west striking ridges that constitute the mineral province of the Otavi Mountains. On this part of the Damara Belt, intra-cratonic rifts contain clastic rocks and shallow-water dolostones of the Nosib Group (~747 million years), overlain by platform carbonates of the Otavi Group (~746-550 million years). Subsidence at the start of the Damaran Orogeny led to deposition of fine siliciclastics of the Mulden Group (580-550 million years) above an on-lap unconformity (Boni et al., 2007).

The origin of the Otavi Mountains is associated with the ancient sea between the Congo and Kalahari Cratons. Over millions of years a lime and dolomite rock mass of up to 5,000 m thick was formed, which was pressed upwards and folded intensely as the result of a gigantic collision between the two mainlands approximately 650 million years ago. Later the landscape was subject to a prolonged period of erosion, and only some of its higher parts preserved a mountainous character. The erosion effected the water soluble limestones particularly, creating a karst landscape marked by several synclinal and anticlinal axes, and underlain by carbonate rocks (mainly silicified dolomites). Dissolution is common, creating cavities, caves and sinkholes, but because of the karst no surface run-off into rivers is possible.

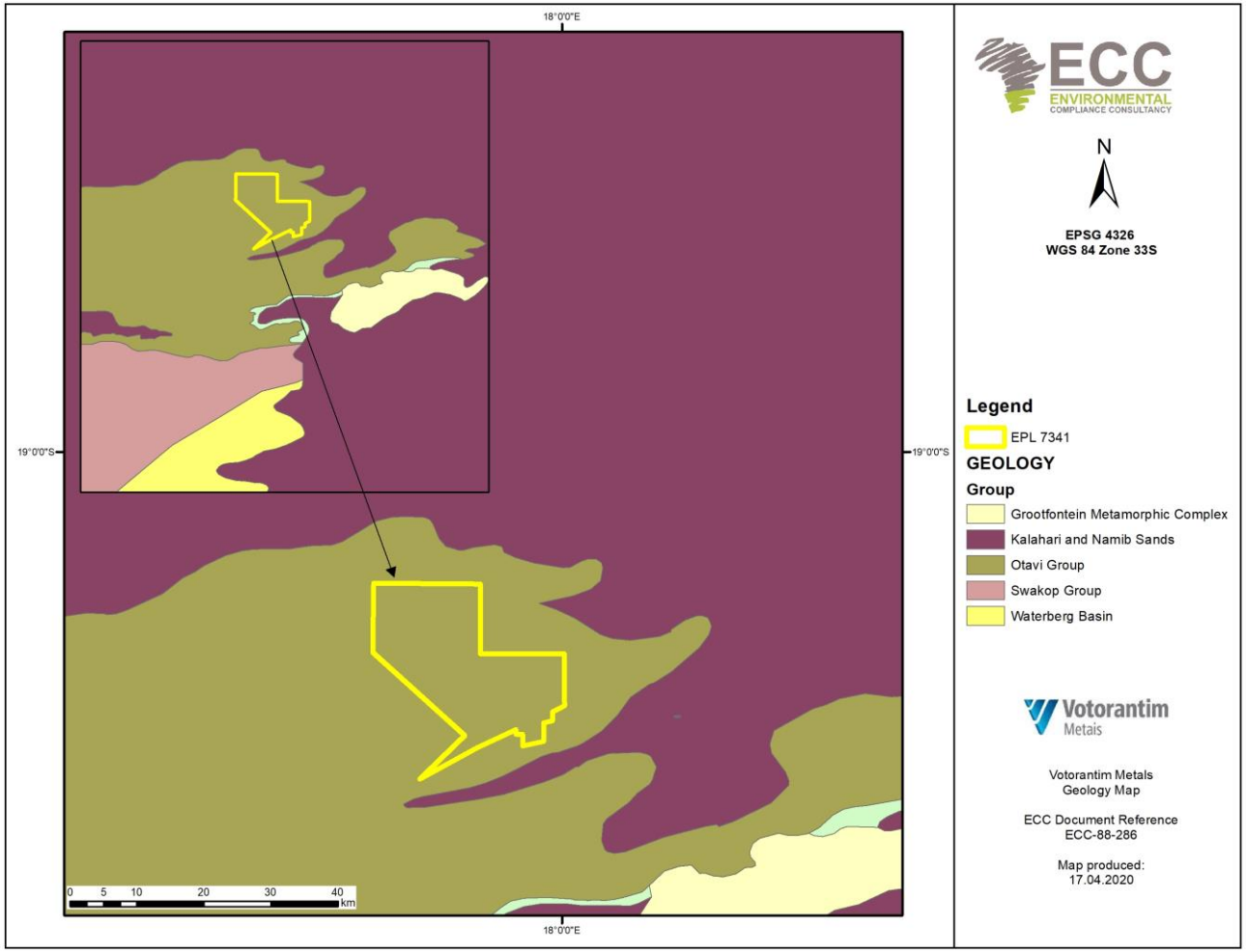



**FIGURE 6 - EPL 7341 REGIONAL AND LOCAL GEOLOGY**

## 5.6 TOPOGRAPHY AND SOIL

EPL 7341 is located on an elevation varying between 1,212 and 1,696 m above mean sea level (Figure 8). The landscape is undulating and covered with a mix of rocky outcrops, luvisols and leptosols (Figure 7). The soil profile is shallow (indicating little influence of soil-forming processes), and contains large amounts of gravel. Leptosols are coarse-textured, underlain by solid rock within 30 cm from the surface. The soil is thus poorly developed and thin, lacks appreciable quantities of accumulated clay and organic material and is susceptible to erosion during the rainy season, especially in the beginning of the rainy season when vegetation cover is sparse. As the topsoil is loose and thin, it is also susceptible to wind erosion, especially when the vegetation cover is sparse.

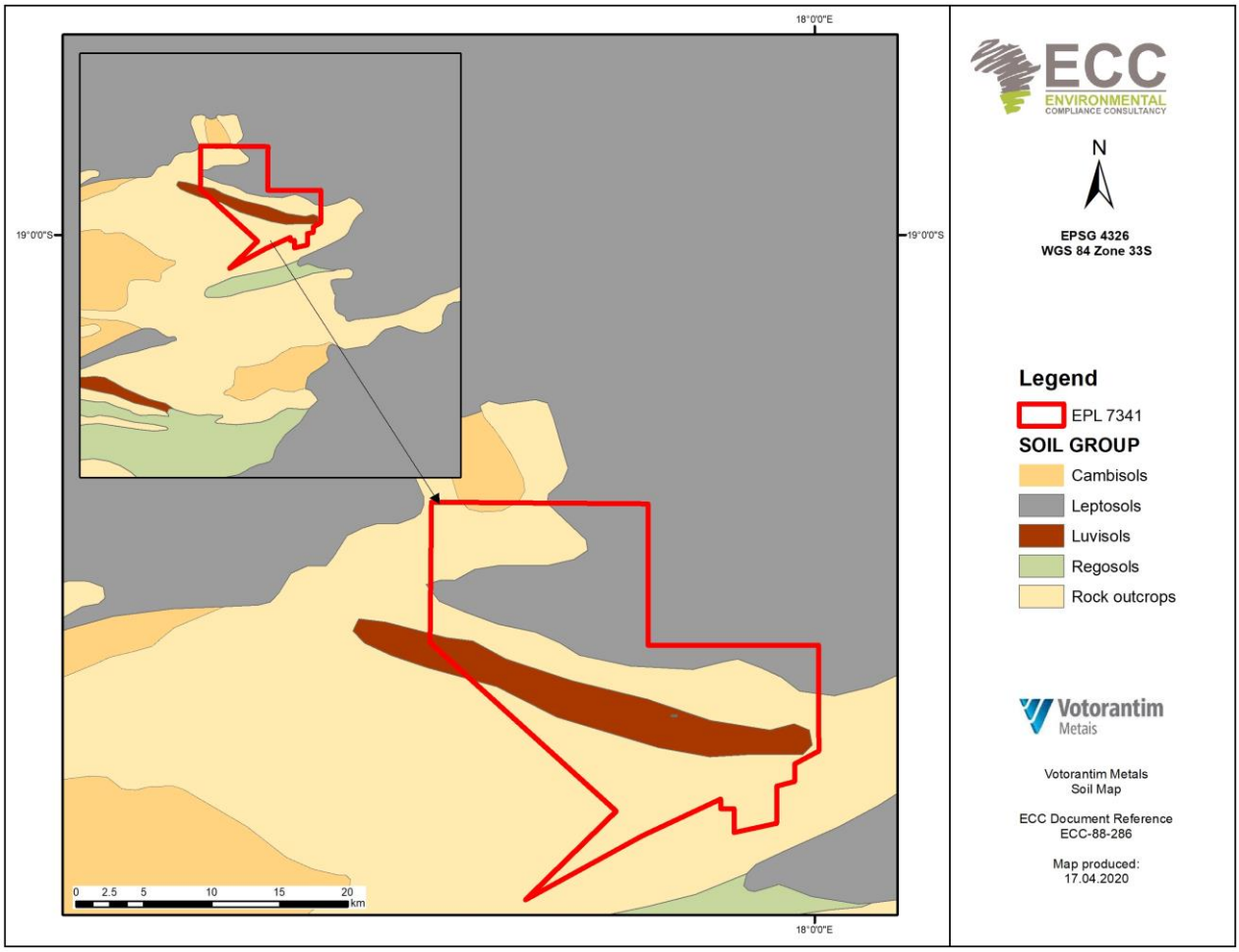



**FIGURE 7 - EPL 7341 REGIONAL AND LOCAL SOIL MAP**

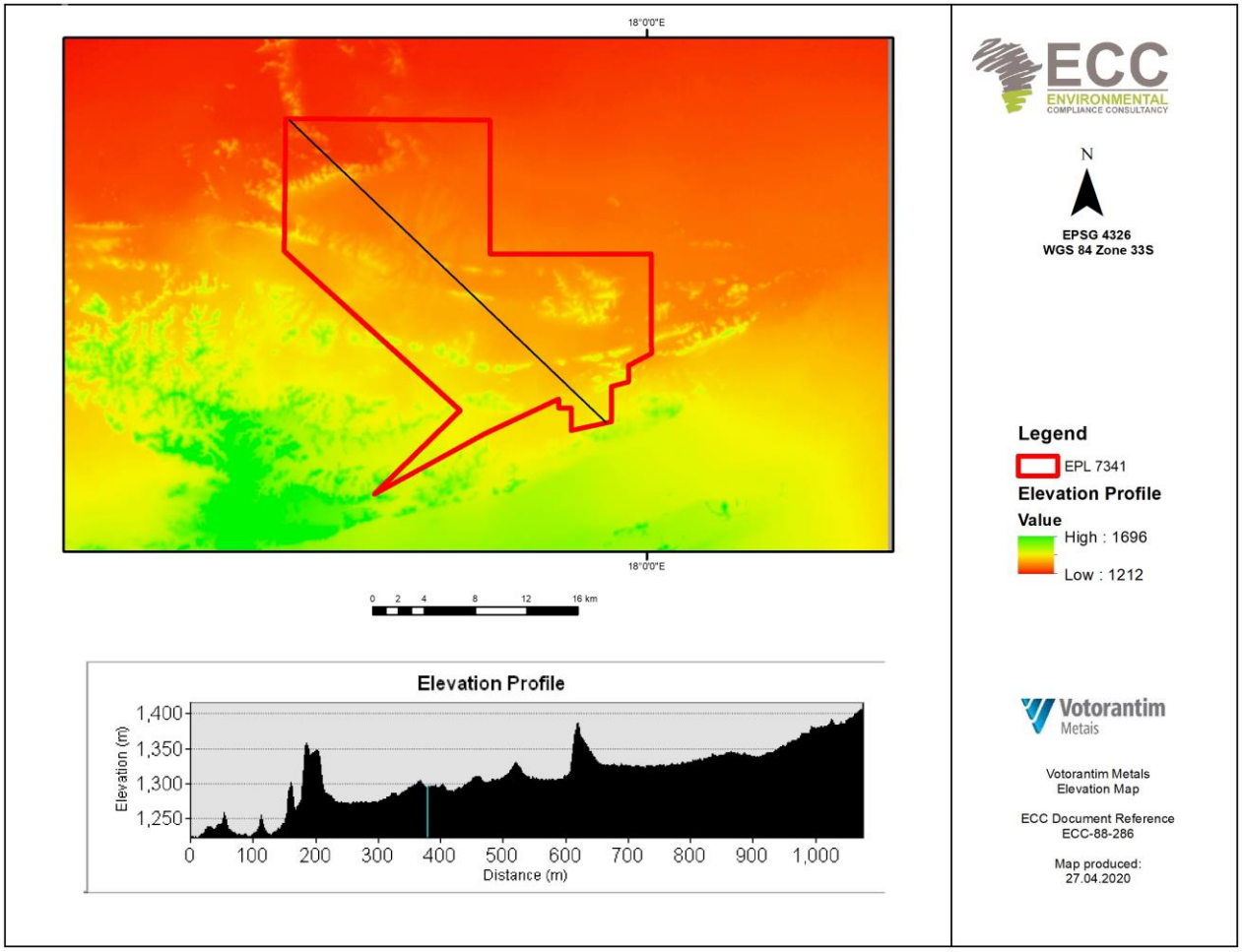



**FIGURE 8 - ELEVATION PROFILE ALONG EPL 7341**

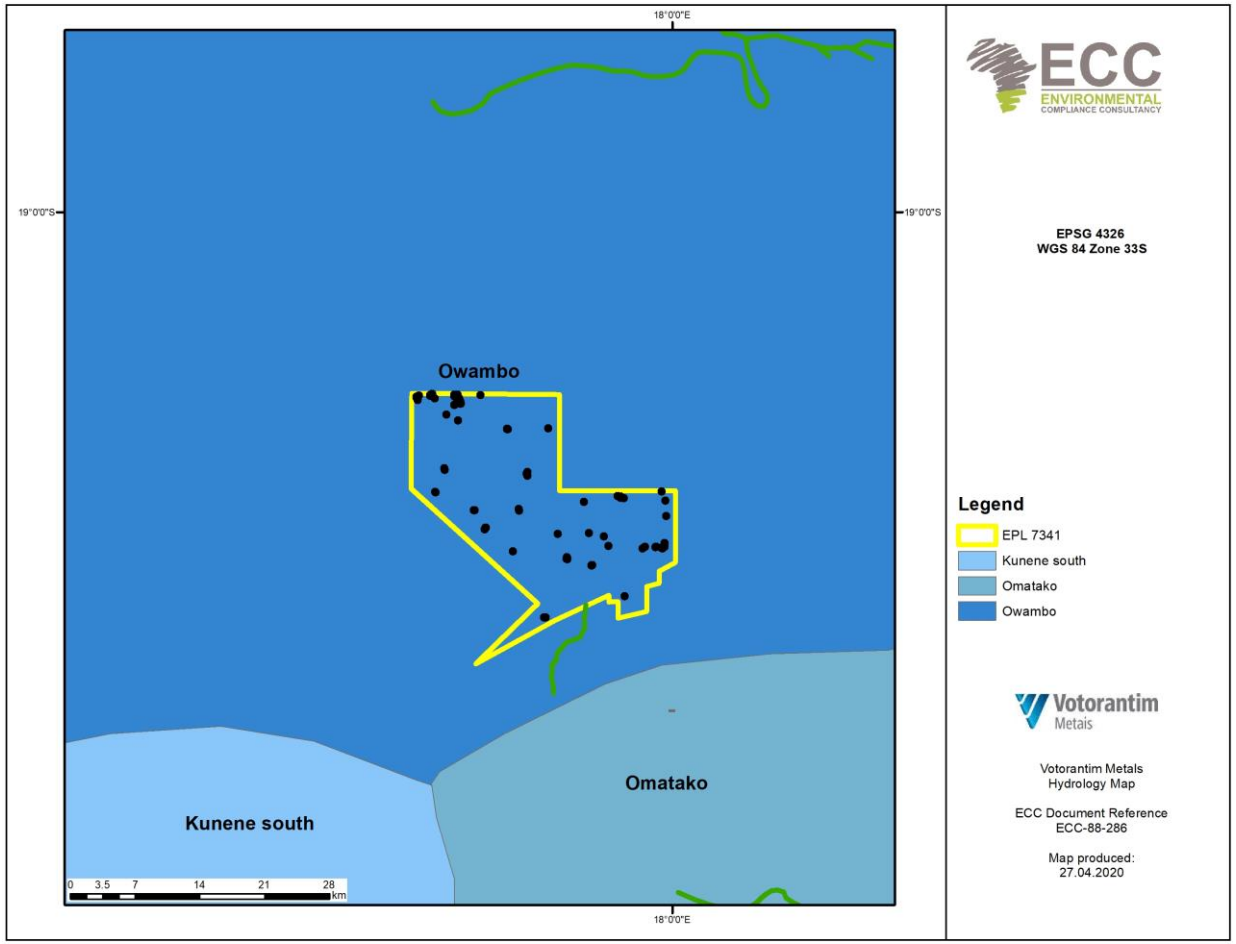



**FIGURE 9 - HYDROLOGY MAP OF THE EPL 7341**

## 5.7 HYDROLOGY

The Otavi Mountains form part of a karst landscape, which means that well-defined surface drainage systems are absent, or follow only short distances before surface water penetrates the surface. Although a drainage pattern can be identified, the flow of surface water is more defined by topographical valleys than the presence of streambeds.

### 5.7.1 GROUNDWATER

The farms located within and nearby EPL 7341 obtain water from borehole abstraction. There are more than 30 boreholes within the EPL 7341 area. It is assumed that water will be obtained from some of these existing boreholes during the exploration activities. Considering the nature and scale of the proposed exploration, drilling is unlikely to impact groundwater. There is no water shortage around the project area, however, should the project require the drilling and abstraction of water from an additional borehole, an application must be submitted to the MAWLR.

### 5.7.2 GROUNDWATER FLOW

EPL 7341 is located on the Owambo Groundwater Basin. The general direction of the groundwater flow is south, towards the Omatako Basin (Figure 9). The area is underlain by dolomites, which show a high potential of groundwater with an increased potential where fractures and faults occur on a local scale. The aquifer is also reliable, as it is frequently recharged and water quality is generally of a high standard (Mendelsohn *et al*., 2002).

## 5.8 BIODIVERSITY

### 5.8.1 VEGETATION

The Otavi Mountains are covered by the Karstveld vegetation type of the *Acacia* Tree-and-shrub Savanna Biome (see Figure 10). It is broadly classified as a woodland, with vegetation dominated by relatively dense stands of woody shrubs and trees. In some places plant growth become progressively shrubby, especially where the soils are shallower, slopes are steeper and where it is more hilly and rocky (Mendelsohn et al, 2002). Most of the woody vegetation vary between 1 and 3m in height. Thorny Acacia species dominate but a number of species are closely associated with the higher elevations only.

The most important environmental variable affecting the vegetation is rain 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 in their abundance. Large parts of the Oshikoto and Otjozondjupa Regions are marked by bush encroachment, mainly as a result of long continuous periods of selective grazing by livestock. The encroachment has led to a decreased carrying capacity on many farms and the invader bush is managed in several ways as a result, one of which is the production of charcoal for export.

Plant diversity is estimated >500 species (Mendelsohn et al, 2002), although local differentiation as a result of topography and the availability of water is possible. This is the highest occurrence of plant diversity in Namibia, and some local endemics occur. Biophysical baseline information does not

accentuate the uniqueness of mountain vegetation and the diversity of plants species may converge on relative small areas in which there are several habitats and niches offered by micro-climate, elevation and sheltered spaces. A detailed vegetation study may identify matters that requires further investigation.

### 5.8.2 Fauna Species

Overall terrestrial biodiversity of the Otavi Mountains ranges from medium to high. The number of mammal species ranges between 61 and 75, the number of bird species is between 201 and 230, with 71 – 80 reptile species, 12 – 15 frog species and 10 – 11 scorpion species that could be expected (Mendelsohn et al, 2002). On a local scale it is expected that diversity increases with the increase in habitats, which is closely coupled to shelter, food and water availability and migration routes. The micro-climate associated with an increase in elevation plays a prominent role in this regard and is directly related to the increase in terrestrial diversity.

The EPL is entirely covered with land used for extensive agriculture. To protect their livestock, farmers are required to manage predators such as cheetahs, leopards and caracals.

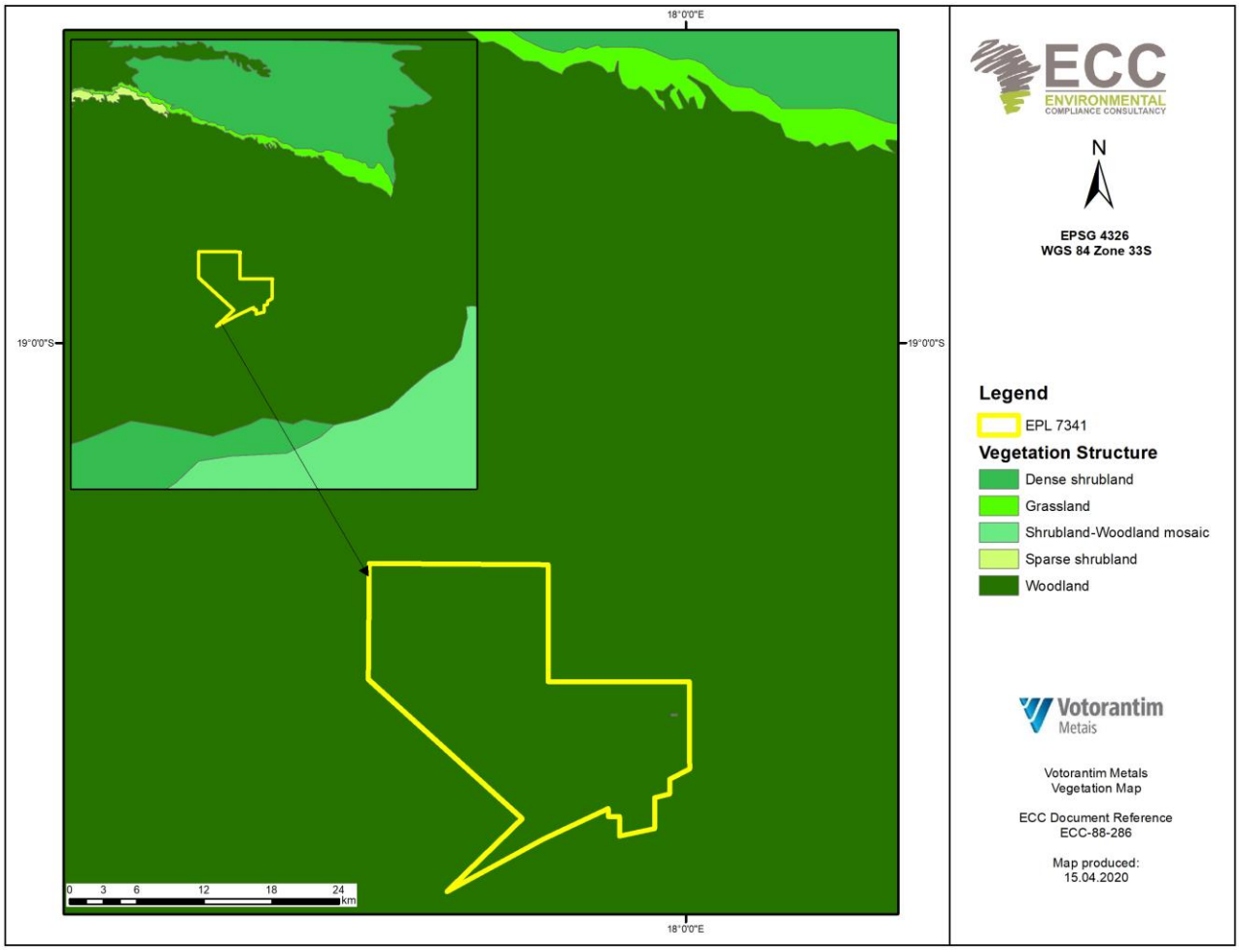



**FIGURE 10 - EPL 7341 REGIONAL AND LOCAL VEGETATION MAP**

## 5.9 SOCIO-ECONOMIC BASELINE

The largest part of EPL 7341 is located in the Oshikoto Region with a tiny part located within the Otjozondjupa Region, which is one of the bigger regions of Namibia and is located in the northern half of the country. The Oshikoto Region named after the Otjikoto Lake, includes a large part of the Etosha National Park to its west, and is bordered by the Omusati and Oshana Regions in the west, the Ohangwena to the north and Kavango-West and Otjozondjupa Regions to the east.

As the largest part of the EPL is located within the Oshikoto Region, most of the information covered in this section is relevant to the Oshikoto Region and discussed below.

The economy of the Oshikoto Region in the northern part is predominantly agriculture-based, whereas the main economic activities in the southern part are cattle rearing, crop production and mining. The majority of the region's population, approximately 87%, live in rural areas. There are 37, 400 households, with an average size of 4.8 persons per household. Extensive livestock farming forms the livelihood of many people. Large parts of the region are covered by commercial and communal farms, mainly for livestock farming. Guest farms and hunting farms are also common. On both commercial and communal land, bush encroachment decreased the carrying capacity of the farms markedly over the last four decades. The invader bush is managed in several ways, one of which is the production of charcoal for export.

### 5.9.1 DEMOGRAPHIC PROFILE

Namibia is one of the least densely populated countries in the world (3.2/km$^2$), with an estimated population of 2.5 million people in 2020. The population growth rate is estimated at 2%, slightly lower than most African countries. It is estimated that 60% of the population falls in the age group 15 – 64, and 36% of the total population is younger than 15. Since 2005 there is a steady improvement in life expectancy, currently estimated at 65 years. In the 2011 Census, the population of the Oshikoto and Otjozondjupa Regions was 181,973 and 142,400 respectively (Namibia Statistics Agency, 2011). In 2018 it was estimated that 50% of all Namibians are urbanized, in other words living in an urban settlement (retrieved from www.worldpopulationreview.com). The last national census was conducted in 2011 and counted 2.1 million Namibians (NSA, 2011).

The Oshikoto Region covers 38,685 km$^2$, with a total population of 181,973 in 2011. The population density (is 4.7 persons per km$^2$) the growth rate was estimated at 1.2%. Tsumeb had a population of 19,275 residents in 2011 estimated to 30,000 in 2019 (NSA, 2017).

### 5.9.2 GOVERNANCE

Namibia is divided in 14 regions, subdivided by 121 constituencies. Oshikoto Region is divided into 11 constituencies. Each region has a regional council, elected during regional elections per constituency. Towns are governed through local authorities, in the form of municipalities. Omuthiya is the capital town for the Oshikoto Region. The town has been proclaimed in October 2007 and the Omuthiya Town Council established in September 2008. The estimated current town population is 3 800.

The town is servicing a surrounding community of approximately 80 000 people. A sharp increase for the community of the town is expected with developments taking place, business opportunities that are being created and the regional and municipal government jobs. The surface area of Omuthiya townlands covers 12,497 hectares (including a part of the Etosha National Park).

Relevant to EPL 7341 the two closest towns, Tsumeb and Grootfontein, are governed through local authorities in the form of municipalities.

### 5.9.3 INFECTIOUS DISEASES

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. Despite the progress, the World Health Organization (WHO) in 2015 recommended strategic priorities of the health system in Namibia which include improved governance, an improved health information system, emergency preparedness, risk reduction and response, preventative health care and the combating of HIV/AIDS and TB (WHO, 2016).

HIV/AIDS remains a major reason for low life expectancy and is one of the leading causes of death in Namibia. There is a high HIV prevalence among the whole population, but since the peak in 2002 (15,000 new cases of HIV per year, and 10,000 yearly deaths due to AIDS) the epidemic started to stabilise (UNICEF, 2011). Although new infections as well as fatalities halved during the next decade, life expectancy for females returned to pre-independence levels but for males it did not reach pre-independence levels yet. HIV/AIDS remains the leading cause of death and premature mortality for all ages, killing up to half of all males and females aged 40 - 44 years in 2013 (IHME, 2016).

Tuberculosis (TB) is a leading killer of people infected by HIV/AIDS, and Namibia has a high burden – in 2018, 35% of people notified with TB were infected with HIV. The country is included among the top 30 high-burden TB countries in the world, with an estimated incidence rate of 423 per 100,000 people and 60 fatalities per 100,000 people in 2018 (retrieved from www.mhss.gov.na).

Over the period 2000 – 2013 significant rises were observed for stroke, ischemic heart diseases, diabetes and depressive disorders, but HIV/AIDS remained the top cause of premature mortality. Over the same period significant decreases were observed for diarrheal diseases, neonatal conditions and malaria. Risk factors are key drivers of premature mortality, and social ills were identified as the leading factor for death – particularly unsafe sex and alcohol and drug abuse. TB and malaria are compounded by the AIDS epidemic, and the risk of contracting malaria and TB is 15% greater if a person is also infected with HIV, with a risk of 50% higher to die as a result (IHME, 2016).

### 5.9.4 EMPLOYMENT

As of 2018, the overall unemployment rate in Namibia was estimated at 33.4%, which is a slight decrease of 0.6% compared to 34.0% in 2016. By region and area, Oshikoto's labour force participation rate was at 18.8% almost the same than the national rate of 19.8%. More than half of the people were employed in the private sector and about one-quarter by the state. Agriculture is the economic sector with the most employees – about 42%, while 40% of those employed fell in the occupational group of general labourers and other unskilled occupations. Wages and salaries represented the income source of 60% of households (Namibian Statistics Agency, 2018). As a whole the region was marked by low education levels, which affected employability and prevented many households to earn a decent income. 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 rates in Namibia, particularly among the youth are high. According to the Namibia Labour Survey (2018), the unemployment rate of the Oshikoto and Otjozondjupa Regions was 26.6%

and 36.1% respectively, while the unemployment rate for people between 15 and 34 years of age was 47.4% in 2018, slightly higher than the national average of 46.1% (Namibian Statistics Agency, 2018).

### 5.9.5 Economic activities

Mining plays a pivotal role in the economy of Namibia. Since independence, it has consistently been the biggest contributor to Namibia's economy in terms of revenue and accounts for 25% of the country's income. Mining is one of the main contributors to GDP, and one of the largest economic sectors of Namibia. The main commodities are uranium, gold, diamonds, copper, zinc, lead, salt and dimension stone. Also a major employer, about 1.7% of the formal labour force of Namibia is directly employed by the mining sector. Employees in mining received the highest wages by industry in 2018 (Namibian Statistics Agency, 2018). The multiplying effect of income from employment in the mining sector is also significant – it is estimated that the mining industry contributes to the livelihood of about 100,000 Namibians (BDO, 2019).

The 2011 census data on the primary industries within which workers are employed shows that Oshikoto is heavily reliant on the agricultural sector 49% of jobs. This is substantially higher than the national average of 30%. The next most prominent sectors were the administrative and support services (7% of jobs), followed by education and activities of private households at (6% of jobs each). The manufacturing sector only contributes to 3% of total direct employment in Oshikoto (Namibian Statistics Agency, 2018).

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 (Namibian Statistics Agency, 2018). Despite the more positive expectations, the economy retracted to an average growth of not more than 1% annually since 2017.

### 5.9.6 Cultural heritage

In Namibia several mountains are closely coupled to heritage values, and it is possible that this applies to the Otavi Mountains as well. For many years the mineral deposits of the mountains were known, and copper was mined at Tsumeb over a period of nine decades. It is possible that the mountains were inhabited or visited before the times of recorded history, simply based on the significance of its known mineral deposits. In addition, the Otavi Mountains are known for the occurrence of fossils and an intriguing palaeontology, which makes it possible that more of these sites can be discovered.

A review of the National Heritage Council database was conducted, and no known heritage sites were identified in EPL 7341. In cases where heritage sites are discovered the chance find procedure will be used.

If any historical importance or heritage sites on or around the project area encountered during exploration activities will be reported to the Monument's Council in Windhoek, and the site will be left untouched.

### 5.9.7 Noise and Sense of Place

EPL 7341 is located where the predominant land use is extensive subsistence farming with the only signs of human influence in the form of agricultural infrastructure, i.e. water installations, fences, tracks

and buildings. Sensitive receptors associated with the EPL area may include farm owners and farm workers, visitors and tourists and neighbours.

The naturalness of the area can be disrupted by the combined and amplified effects of exploration activities – in the form of noise, dust, movements of heavy machinery, landscape scars and visual obtrusions. This may alter and affect the lifestyle of receptors, although the exploration activities are short-term and reversible.

EPL 7341 lies over 40 farms and it is likely that noise will become a nuisance to farmers / residents of the area. The proponent will continue to communicate with the farm owners, should this be a pertaining issue, and further mitigation measures will be applied.

Additionally, work will be planned in advance and an agreement will be met with the farm owners on the most suitable timing of work and amelioration noise during drilling activities.

# 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 stage were undertaken in May and June 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.

## 6.2 ASSESSMENT GUIDANCE

The principal documents used to inform the assessment method are:

- International Finance Corporation standards and models, in particular Performance Standard 1, 'Assessment and management of environmental and social risks and impacts' (International Finance Corporation, 2017) (International Finance Corporation, 2012);
- International Finance Corporation CIA and Management Good Practice Handbook (International Finance Corporation, 2013); and,
- Namibian Draft Procedures and Guidance for EIA and EMP (Republic of Namibia, 2008).

## 6.3 LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS

Some limitations and uncertainties were acknowledged during the EIA process, which are summarised in Table 6, along with the assumptions made to manage them. 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 6 - LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS**

| LIMITATION / UNCERTAINTY | ASSUMPTION |
|---|---|
| Number of access roads and temporary drill campsites | The making of new tracks or access roads will be 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 bush to create small roads, which may be required for equipment to reach the site and for temporary campsites. If needed, cut lines have to be created by clearing of vegetation to have access to some parts of the EPL. |
| The program of exploration works is not confirmed | It is assumed that exploration work shall take a couple of months with two to three week sampling projects at different times on different sites and with follow-up exploration drilling projects possible. Activities involve drilling; aerial or remote sensing; geophysical surveys; and mineral sampling. Pitting and trenching are unlikely. |
| Number of workers, area they will come from and accommodation | It is planned that approximately 10 people will be contracted for the proposed project. Most of the employees will stay in Tsumeb; contractors may camp on exploration sites / farms, depending on approval of farm owners. |

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.

## 6.4 DETERMINATION OF SIGNIFICANCE

The evaluation and identification of the environmental and social impacts require the assessment of the project characteristics against the baseline characteristics, ensuring all potentially significant impacts are identified and assessed. The significance of an impact is determined by taking into consideration the combination of the sensitivity and importance/value of environmental and social receptors that may be affected by the proposed project, the nature and characteristics of the impact, and the magnitude of potential change. The magnitude of change (the impact) is the identifiable changes to the existing environment which may be negligible, low, minor, moderate, high, or very high; temporary/short term, long-term or permanent; and either beneficial or adverse.

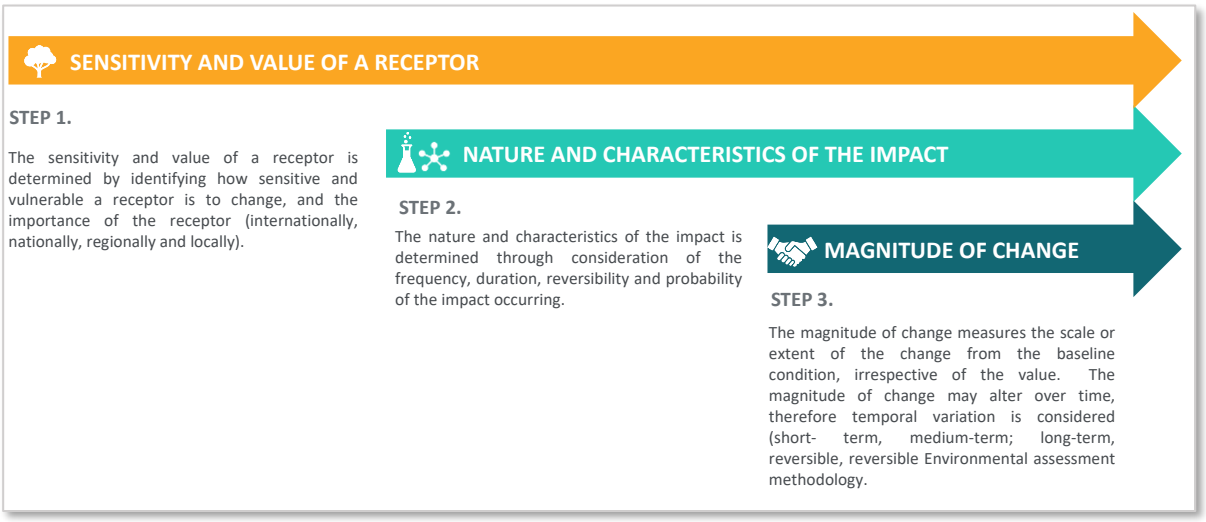



**FIGURE 11 - DETERMINATION OF SIGNIFICANCE**

The tables below set the description and thresholds used in determining impact significance.

**TABLE 7 - NATURE OF IMPACT**

| NATURE | |
|---|---|
| **Term** | **Description** |
| **Beneficial (Positive)** | An impact that is considered to represent an improvement on the baseline or introduces a positive change. |
| **Adverse (Negative)** | An impact that is considered to represent an adverse change from the baseline or introduces a new undesirable factor. |

**TABLE 8 - TYPE OF IMPACT**

| TYPE | |
|---|---|
| **Term** | **Description** |
| **Direct** | Impacts causing an impact through direct interaction between a planned project activity and the receiving environment/receptors. |
| **Indirect** | Impacts that result from other activities that are encouraged to happen as a result / consequence of the Project. Associated with the project and may occur at a later time or wider area |
| **Cumulative** | Impacts that arise as a result of an impact and effect from the project interacting with those from another activity to create an additional impact and effect |

**TABLE 9 - REVERSIBILITY OF IMPACT**

| REVERSIBILITY | |
|---|---|
| **Term** | **Description** |
| **Reversible** | Impacts are reversible and recoverable in the future |
| **Partly Reversible** | Some parts of the impact can be reversed while others remain |
| **Irreversible** | Impacts which are not reversible and are permanent |

**TABLE 10 - MAGNITUDE OF CHANGE**

| MAGNITUDE OF CHANGE | |
|---|---|
| **Term** | **Description** |
| **None / negligible** | Very minor loss or detrimental alteration to one (or maybe more) characteristic, feature or element; or<br>Very minor benefit to, or positive addition of, one (or maybe more) characteristic, feature or element. |
| **Low / Minor** | Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (or maybe more) key characteristic, feature or element; or<br>Minor benefit to, or addition of, one (or maybe more) key characteristic, feature or element; some beneficial effect on attribute quality or a reduced risk of a negative effect occurring. |
| **Moderate** | Loss of resource, but not adversely affecting its integrity; partial loss of/damage to key characteristics, features or elements; or<br>Benefit to, or addition of, key characteristics, features or elements; improvements of attribute quality. |
| **High / Major** | Loss of resource, and quality and integrity of resource; severe damage to key characteristics, features or elements; or<br>Large scale or major improvement of resources quality; extensive restoration or enhancement; major improvement of attribute quality. |
| **Very high / unknown** | Loss of resource, significantly affecting the long term quality and integrity of a resource; irreparable damage or loss of key characteristics, features or elements; or the magnitude is too great to quantify as it is unknown. |

**TABLE 11 - DURATION OF IMPACT**

| DURATION | |
|---|---|
| **Term** | **Description** |
| **Temporary** | Transient; a period of less than 1 year |
| **Short term** | Impacts that are likely to last for the duration of the activity causing the impact and are recoverable (1-5 years) |
| **Medium term** | Impacts that are likely to continue after the activity causing the impact and are recoverable (5-15 years) |
| **Long term** | Impacts that are likely to last far beyond the end of the activity causing the damage (greater than 15 years with impact ceasing after decommissioning of the project) |
| **Permanent** | Permanent |

**TABLE 12 - SCALE OF CHANGE**

| SCALE OF CHANGE - EXTENT / GEOGRAPHIC SCALE | |
|---|---|
| **Term** | **Description** |
| **On-site** | Impacts that are limited to the boundaries of the proposed project site |
| **Local** | Impacts that occur in the local area of influence, including around the proposed site and within the wider community |
| **Regional** | Impacts that affect a receptor that is regionally important by virtue of scale, designation, quality or rarity. |
| **National** | Impacts that affect a receptor that is nationally important by virtue of scale, designation, quality or rarity. |
| **International** | Impacts that affect a receptor that is internationally important by virtue of scale, designation, quality or rarity. |

**TABLE 13 - PROBABILITY OF CHANGE**

| PROBABILITY | |
|---|---|
| **Term** | **Description** |
| **Improbably (Rare)** | The event may occur in exceptional circumstances yet, rarely occurs in the industry.<br>The event could occur once every 100 years |
| **Low probability (Unlikely)** | The event has happened elsewhere yet, is unlikely to occur.<br>The event could occur once every 10 years |
| **Medium Probability (Possible)** | The event could occur under some circumstances.<br>The event could occur once every 5 years. |
| **High Probability (Likely)** | The event is expected to occur.<br>The event could occur twice per year |
| **Definite (Almost certain)** | The event will occur.<br>The event could occur once per month |

**TABLE 14 - SIGNIFICANCE DESCRIPTION**

| SIGNIFICANCE OF IMPACT | DESCRIPTION |
|---|---|
| **Low – Major (Beneficial) All scores** | Impacts are considered to be beneficial to the environment and society: |
| **Low (negative) 0 - 25** | Impacts are considered to be local factors that are unlikely to be critical to decision-making. |
| **Minor (negative) 25 - 50** | Impacts are considered to be important factors but are unlikely to be key decision-making factors. The impact will be experienced, but the impact magnitude is sufficiently small (with and without mitigation) and well within accepted standards, and/or the receptor is of low sensitivity/value. Impacts are considered to be short-term, reversible and/or localized in extent. |
| **Moderate (negative) 50 - 75** | Impacts are considered within acceptable limits and standards. Impacts are long-term, but reversible and/or have regional significance. These are generally (but not exclusively) associated with sites and features of national importance and resources/features that are unique and which, if lost, cannot be replaced or relocated. |
| **Major (negative) 75 - 100** | Impacts are considered to be key factors in the decision-making process that may have an impact of major significance, or large magnitude impacts occur to highly valued/sensitive resource/receptors.<br>Impacts are expected to be permanent and non- reversible on a national scale and/or have international significance or result in a legislative non- compliance. |

**TABLE 15 - SENSITIVITY AND VALUE OF RECEPTOR**

| SENSITIVITY AND VALUE | DESCRIPTION |
|---|---|
| Low | Of value, importance or rarity on a local scale; and/or not particularly sensitive to change or has considerable capacity to accommodate a change. |
| Medium | Of value, importance or rarity on a regional scale, and with limited potential for substitution; and/or moderate sensitivity to change, or moderate capacity to accommodate a change. |
| High | Of value, importance or rarity on an international and national scale, and with very limited potential for substitution; and/or very sensitive to change or has little capacity to accommodate a change. |

**TABLE 16 - SIGNIFICANCE OF IMAPCT**

| | | | | Signifance of Impact | | | |
|---|---|---|---|---|---|---|---|
| | | | Signifance of Impact | Impacts are considered to be local factors that are unlikely to be critical to decision-making. | Impacts are considered to be important factors but are unlikely to be key decision-making factors. The impact will be experienced, but the impact magnitude is sufficiently small (with and without mitigation) and well within accepted standards, and/or the receptor is of low sensitivity/value. Impacts are considered to be short-term, reversible and/or localized in extent. | Impacts are considered within acceptable limits and standards. Impacts are long-term, but reversible and/or have regional significance. These are generally (but not exclusively) associated with sites and features of national importance and resources/features that are unique and which, if lost, cannot be replaced or relocated. | Impacts are considered to be key factors in the decision-making process that may have an impact of major significance, or large magnitude impacts occur to highly valued/sensitive resource/receptors. Impacts are expected to be permanent and non- reversible on a national scale and/or have international significance or result in a legislative non- compliance. |
| | Biophysical | Social | | Low | Minor (2) | Moderate (3) | Major (4) |
| Sensitivity | A biophysical recepeotr that is protected under legislation or internaiton conventions (CITES) listed as rare, threatened or endangered IUCN specidices. Highly valued/sensitive resource/receptors | Those affected people/communities will not be able to adapt to changes or continue to maintain-pre impact livelihoods. | High (3) | Minor (3) | Moderate (6) | Major (9) | Major (12) |
| | Of value, importance or rarity on a regional scale, and with limited potential for substitution; and/or Not protected or listed (gloabbally) but may be a rare or threatened species in coutnry; with little reslisence to ecosystem changes, imporant to ecosystem functions, or one under threat or popultion declinet. | Able to adapt with some difficulty and maintain preimpact status but only with a degree of support | Medium (2) | Low (2) | Minor (4) | Moderate (6) | Major (8) |
| | Not protected or listed as common / abundant; or not crtical to other ecosystems functions | Those affected are able to adapt with relative ease and maintain preimpacrt status. There is no perceptible change to people's livelihood. | Low (1) | Low (1) | Low (2) | Minor (3) | Moderate (4) |

To ensure the beneficial impacts are brought out in the assessment, green has been applied to ensure the different type of impact is clear. The description for each level of significance presented in Table 14 was also followed when determining the level of significance of a beneficial impact.

The significance of impacts has been derived by applying the identified thresholds for receptor sensitivity and magnitude of change, as well as the definition of significance. **Moderate and major adverse impacts are considered as significant**. The following thresholds were therefore used to double check the assessment of significance had been applied appropriately; a significant impact would meet **at least one** of the following criteria:

- It exceeds widely recognized levels of acceptable change;

- It threatens or enhances the viability or integrity of a receptor or receptor group of concern; and
- It is likely to be material to the ultimate decision about whether or not the environmental clearance certificate is granted.

## 6.5 MITIGATION

Mitigation comprises a hierarchy of measures ranging from preventative environmental impacts by avoidance, to measures that provide opportunities for environmental enhancement. The mitigation hierarchy is avoidance; reduction at source; reduction at receptor level; repairing and correcting; compensation; remediation; and enhancement.

Mitigation measures can be split into three distinct categories, broadly defined as:

1. Actions undertaken by the EIA process that influence the design process, through implementing design measures that would entirely avoid or eliminate an impact or modifying the design through the inclusion of environmental features to reduce the magnitude of change. These are considered as embedded mitigation.
2. Standard practices and other best practice measures for avoiding and minimizing environmental impacts. These are considered as good practice measures.
3. Specified additional measures or follow-up action to be implemented to further reduce adverse impacts that remain after the incorporation of embedded mitigation. These are considered as additional mitigation.

The EIA is an iterative process whereby the outcomes of the environmental assessments inform the project. Considerable mitigation has been built into the proposed project as potentially significant adverse environmental impacts have been identified and design changes have been identified to overcome or reduce them. The EMP (Appendix A) provides the good practice measures and specified additional measures or follow-up action.

Embedded mitigation and good practice mitigation have been taken into account in the assessment. Additional mitigation measures have been identified when the significance of impact requires it and causes the impact to be further reduced. Where additional mitigation has been identified, a final assessment of the significance of impacts (residual impacts) was carried out taking into consideration the additional mitigation.

# 7 IMPACT ASSESSMENT FINDINGS AND PROPOSED MITIGATION MEASURES

This section sets out the overall approach that was adopted to assess the potential environmental and social impacts associated with the project. To fully understand the significance of each of the potential impacts, each impact must be evaluated and assessed.

## 7.1 SCOPING ASSESSMENT FINDINGS

When undertaking the scoping 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;
- Socio-economics (employment, demographics, and land-use);
- Noise;
- Ecology (fauna and flora);
- Air quality (including dust); and
- Cultural heritage.

Table 17 sets out the findings of the scoping assessment phase. Activities that could be the source of an impact have been listed, followed by receptors that could be affected. The pathway between the source and the receptor has been identified where both are present. Where an activity and / or receptor 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 site, 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 effects on human receptors from the increase in noise levels and visual impacts, namely residents in the near farmhouses. Further consideration of the potential effects on humans was therefore undertaken and results are presented in the next section.

**TABLE 17- SCOPING ASSESSMENT FINDINGS AND PROPOSED MITIGATION MEASURES**

| DESCRIPTION OF ACTIVITY | RECEPTOR | DESCRIPTION OF IMPACT | EFFECT/DESCRIPTION OF MAGNITUDE | VALUE OF SENSITIVITY | MAGNITUDE OF CHANGE | SIGNIFICANCE OF IMPACT | IMPACT MANAGEMENT/CONTROL MEASURES | RESIDUAL IMPACT AFTER MITIGATION |
|---|---|---|---|---|---|---|---|---|
| Site operations such as maintenance activities, loss of containment, accidental fuel / hydraulic fluid leaks and spills, or similar sources. | **Groundwater quality** | Hydrocarbon leaks and spills could enter the aquifer causing contamination. | Adverse<br>Direct<br>Partly Reversible<br>Moderate<br>Short term<br>Regional<br>Possible | Medium | Minor | Minor (4) | - Good house keeping<br>- Training through toolbox talks and induction<br>- All stationary vehicles and machinery must have drip trays to collect leakages of lubricants and oil<br>- Spill kits and absorption material available during fuel delivery, storage or use<br>- Accidental spills and leaks (including absorption material) to be cleaned as soon as possible<br>- Major spills to be reported, also to the authorities<br>- Maintenance and service schedules on equipment is in place<br>- Store bulk fuel in adequate containment areas (non-porous surface, bunded)<br>- No damaged containers in use<br>- Preventative measures will be in place when service and maintenance activities are | Low (2) |

| DESCRIPTION OF ACTIVITY | RECEPTOR | DESCRIPTION OF IMPACT | EFFECT/DESCRIPTION OF MAGNITUDE | VALUE OF SENSITIVITY | MAGNITUDE OF CHANGE | SIGNIFICANCE OF IMPACT | IMPACT MANAGEMENT/CONTROL MEASURES | RESIDUAL IMPACT AFTER MITIGATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | done (drip trays, non-porous surfaces, funnels, non-damaged containers)<br>- Refuelling will be done in areas with adequate preventative measures in place | |
| Potential spillages of drill fluid, lubrication, etc. or drilling that penetrate the groundwater table. | **Groundwater quality** | Hydrocarbon leaks and spills could enter the aquifer causing contamination. | Adverse<br>Indirect<br>Partly Reversible<br>Minor<br>Short term<br>Local<br>Possible | Low | Minor | Low (2) | - Ensure drill pads and spill kits are in place<br>- Consider alternative sites when water table is too high<br>- Drill system should be dug to direct any accidental spills into sumps<br>- Extraction volumes of water shall be minimal during exploration and where possible, water from existing water sources shall be used | Low (1) |
| Discharge and infiltration of non-contained wastewater | **Water** | Wastewater can contaminate surface and groundwater | Adverse<br>Direct<br>Partly Reversible<br>Minor<br>Short term<br>Regional<br>Unlikely | Low | Minor | Low (2) | - Wastewater discharges will be contained<br>- Workers will be made aware about the importance of wastewater management<br>- Good housekeeping | Low (1) |
| Inadequate management of waste | **Water** | Waste items and litter can pollute drainage channels | Adverse<br>Cumulative<br>Reversible | Low | Low | Low (1) | - Good housekeeping<br>- Training and awareness through toolbox talks and | Low (1) |

| DESCRIPTION OF ACTIVITY | RECEPTOR | DESCRIPTION OF IMPACT | EFFECT/DESCRIPTION OF MAGNITUDE | VALUE OF SENSITIVITY | MAGNITUDE OF CHANGE | SIGNIFICANCE OF IMPACT | IMPACT MANAGEMENT/CONTROL MEASURES | RESIDUAL IMPACT AFTER MITIGATION |
|---|---|---|---|---|---|---|---|---|
| | | | Minor<br>Temporary<br>On-site<br>Unlikely | | | | induction<br>- Implement a Standard Operational Procedure on waste management, from cradle to grave for all kinds of waste possible on-site (e.g. domestic, mineral, hydrocarbons, hazardous, etc.)<br>- Raise awareness about the importance of responsible waste management<br>- Implement a culture of correct waste collection, waste segregation and waste disposal<br>- Avoid hazardous waste on site<br>- Wastewater discharges will be contained – no disposal of waste water | |
| Inadequate management of hazardous and hydrocarbon waste | **Soil** | Pollution of soil | Adverse<br>Direct<br>Reversible<br>Minor<br>Short term<br>On-site<br>Possible | Low | Minor | Low (2) | - Good housekeeping<br>- Training and awareness through toolbox talks and induction<br>- Implement a Standard Operational Procedure (SOP) on waste management, from cradle to grave, for all kinds | Low (1) |

| DESCRIPTION OF ACTIVITY | RECEPTOR | DESCRIPTION OF IMPACT | EFFECT/DESCRIPTION OF MAGNITUDE | VALUE OF SENSITIVITY | MAGNITUDE OF CHANGE | SIGNIFICANCE OF IMPACT | IMPACT MANAGEMENT/CONTROL MEASURES | RESIDUAL IMPACT AFTER MITIGATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | of waste possible on-site (e.g. domestic, mineral, hydrocarbons, hazardous)<br>- Implement a culture of correct waste collection, waste segregation and waste disposal | |
| Vegetation clearing for access routes, drill pads and temporary contractors camp | **Terrestrial ecology and biodiversity** | Loss / alteration of terrestrial habitats and loss of species | Adverse<br>Direct<br>Reversible<br>Minor<br>Short term<br>On-site<br>Possible | Low | Minor | Low (2) | - Use existing roads for access to avoid new tracks and cut lines<br>- Minimise clearance areas through proper planning of the exploration activities<br>- Where possible, rescue and relocate plants of significance<br>- Promote revegetation of cleared areas upon completion of exploration activities | Low (1) |
| Ambient noise as a result of machinery use and movement (also through the use of airborne equipment) | **Terrestrial ecology and biodiversity** | Residing and nesting organisms can be disturbed | Adverse<br>Direct<br>Reversible<br>Minor<br>Short term<br>On-site<br>Likely | Low | Minor | Low (2) | - Restrict excessive noise to areas of activities only<br>- Restrict excessive noise to daytime hours (7 am to 5 pm weekdays and 7 am until 1 pm on Saturday)<br>- No activities between dusk and dawn<br>- Drill equipment shall be | Low (1) |

| DESCRIPTION OF ACTIVITY | RECEPTOR | DESCRIPTION OF IMPACT | EFFECT/DESCRIPTION OF MAGNITUDE | VALUE OF SENSITIVITY | MAGNITUDE OF CHANGE | SIGNIFICANCE OF IMPACT | IMPACT MANAGEMENT/CONTROL MEASURES | RESIDUAL IMPACT AFTER MITIGATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | suitably positioned to ensure that noisy equipment is away from receptors<br>- All equipment to be shut down or throttled back between periods of use,<br>- Respect civic aviation regulations about the use of a drone | |
| Increased movement of machinery | **Terrestrial ecology and biodiversity** | Residing and nesting organisms such as reptiles can be disturbed, injured or killed | Adverse<br>Direct<br>Partly reversible<br>Moderate<br>Short term<br>On-site<br>Possible | Low | Minor | Low (2) | - Restrict movements to areas of activities only<br>- Use existing tracks and routes only<br>- Identify rare, endangered, threatened and protected species in advance<br>- Route new tracks around protected species and sensitive areas<br>- Restrict movements to daytime hours<br>- Make workers aware and notify them on avoiding some areas<br>- No driving off designated access routes (into the bush) / off-road driving<br>- No animals or birds may be collected, caught, consumed | Low (1) |

| DESCRIPTION OF ACTIVITY | RECEPTOR | DESCRIPTION OF IMPACT | EFFECT/DESCRIPTION OF MAGNITUDE | VALUE OF SENSITIVITY | MAGNITUDE OF CHANGE | SIGNIFICANCE OF IMPACT | IMPACT MANAGEMENT/CONTROL MEASURES | RESIDUAL IMPACT AFTER MITIGATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | or removed from site | |
| Increased disturbance of areas with natural vegetation | **Terrestrial ecology and biodiversity** | Alien species and weeds can be introduced to the area | Adverse<br>Direct<br>Reversible<br>Minor<br>Short term<br>On-site<br>Possible | Low | Minor | Low (2) | - Eradicate weeds and alien species as soon as they appear<br>- Make workers aware about alien species and weeds | Low (1) |
| Vegetation clearing | **Soil** | Increased exposure due to vegetation clearance can cause soil erosion | Adverse<br>Direct<br>Reversible<br>Moderate<br>Short term<br>On-site<br>Possible | Low | Minor | Low (2) | - Ensure erosion control and prevention measures are in place when vegetation clearance is required<br>- Where possible, plan access routes, drill pads and camps outside of existing drainage lines<br>- Where necessary, install diversions to curb possible erosion<br>- Restore drainage lines when disturbed | Low (1) |
| Drilling and the use of drilling equipment | **Soil** | Loss of soil quality due to mixing of earth matter, trampling and compaction | Adverse<br>Direct<br>Reversible<br>Moderate<br>Short term<br>On-site<br>Possible | Low | Minor | Low (2) | - Limit the possibility of compaction and creating of a hard subsurface<br>- Limit the possibility of trampling<br>- Topsoil should be stockpiled separately, and re-spread | Low (1) |

| DESCRIPTION OF ACTIVITY | RECEPTOR | DESCRIPTION OF IMPACT | EFFECT/DESCRIPTION OF MAGNITUDE | VALUE OF SENSITIVITY | MAGNITUDE OF CHANGE | SIGNIFICANCE OF IMPACT | IMPACT MANAGEMENT/CONTROL MEASURES | RESIDUAL IMPACT AFTER MITIGATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | during rehabilitation<br>- During drilling oil absorbent matting should be placed under and around the rig<br>- Equipment must be in a good condition to ensure that accidental oil spills do not occur and contaminate soil<br>- In the event of spills and leaks, polluted soils must be collected and disposed of at an approved site<br>- Limit the possibility to mix mineral waste with topsoil | |
| Drilling activities, movement of machinery and vehicles | **Heritage** | Potential damage to cultural heritage sites | Adverse<br>Direct<br>Partly Reversible<br>High<br>Permanent<br>On-site<br>Possible | High | Minor | Moderate (6) | - Implement a Chance Find Procedure<br>- Raise awareness about possible heritage finds<br>- Report all finds that could be of heritage importance<br>- In case archaeological remains to be uncovered, cease activities and the site manager has to assess and demarcate the area<br>- Project manager to visit the site and determine whether work can proceed without damage to findings, mark | Minor (4) |

| DESCRIPTION OF ACTIVITY | RECEPTOR | DESCRIPTION OF IMPACT | EFFECT/DESCRIPTION OF MAGNITUDE | VALUE OF SENSITIVITY | MAGNITUDE OF CHANGE | SIGNIFICANCE OF IMPACT | IMPACT MANAGEMENT/CONTROL MEASURES | RESIDUAL IMPACT AFTER MITIGATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | exclusions boundary and inform ECC with GPS position<br>- If needed, further investigation have to be requested for a professional assessment and the necessary protocols of the Chance Find Procedure have to be followed,<br>- Archaeologist will evaluate the significance of the remains and identify appropriate action, (record and remove; relocate or leave premises, depending on the nature and value of the remains),<br>- Inform the police if the remains are human,<br>- 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. | |
| Drilling activities, including dust and | **Community** | Visual disturbance and loss of Sense of | Adverse Direct | High | Minor | Moderate (6) | – Position drill equipment in such a way that it is out of | Minor (4) |

| DESCRIPTION OF ACTIVITY | RECEPTOR | DESCRIPTION OF IMPACT | EFFECT/DESCRIPTION OF MAGNITUDE | VALUE OF SENSITIVITY | MAGNITUDE OF CHANGE | SIGNIFICANCE OF IMPACT | IMPACT MANAGEMENT/CONTROL MEASURES | RESIDUAL IMPACT AFTER MITIGATION |
|---|---|---|---|---|---|---|---|---|
| emissions | | Place | Reversible<br>Moderate<br>Temporary<br>Local<br>Likely | | | | sight from human receptors<br>– Apply dust suppression where possible<br>– Restrict speed of vehicles (<30km/h)<br>– Specific activities that may generate dust and impact on residents shall be avoided during high wind events<br>– All vehicles and machinery / equipment to be shut down or throttled back between periods of use<br>– Barriers or fences shall be used if drilling occurs in locations that may affect residents or livestock<br>– Residents need to be informed at least two weeks in advance that drilling operations are within 1km of their property<br>– Maintain good housekeeping<br>– Continuous engagement with residents to identify any concerns or issues, and appropriate mitigation and management measures agreed upon | |

| DESCRIPTION OF ACTIVITY | RECEPTOR | DESCRIPTION OF IMPACT | EFFECT/DESCRIPTION OF MAGNITUDE | VALUE OF SENSITIVITY | MAGNITUDE OF CHANGE | SIGNIFICANCE OF IMPACT | IMPACT MANAGEMENT/CONTROL MEASURES | RESIDUAL IMPACT AFTER MITIGATION |
|---|---|---|---|---|---|---|---|---|
| Movement of vehicles, exploration activities | **Community** | Create conflict with farm owners and neighbours about access, leaving gates open, suspicious movements, loss of farming area, etc. | Adverse<br>Indirect<br>Reversible<br>Minor<br>Short term<br>On-site<br>Likely | Low | Minor | Low (2) | – Ensure documented permission to enter farms<br>– Farmers should have access to all farm areas at all times<br>– Residents shall be provided at least two weeks' notice of drilling operations within 1 km of their property<br>– Existing water points and feeding area need to be left unaffected<br>– Use existing roads for access, avoid new tracks / cut lines,<br>– Compliance with all applicable laws and agreements<br>– Continuous engagement with residents to identify any concerns or issues, and mitigation and management measures agreed upon | Low (1) |
| Movement of vehicles, exploration activities | **Community** | Presence of exploration team can be blamed for stock theft and poaching | Adverse<br>Cumulative<br>Reversible<br>Minor<br>Temporary<br>Local<br>Unlikely | Low | Low | Low (1) | – Develop and implement an operations manual or procedures to work on private farms and implement monitoring programmes thereafter<br>– Maintain continuous engagement with residents | Low (1) |

| DESCRIPTION OF ACTIVITY | RECEPTOR | DESCRIPTION OF IMPACT | EFFECT/DESCRIPTION OF MAGNITUDE | VALUE OF SENSITIVITY | MAGNITUDE OF CHANGE | SIGNIFICANCE OF IMPACT | IMPACT MANAGEMENT/CONTROL MEASURES | RESIDUAL IMPACT AFTER MITIGATION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | to identify any concerns or issues, and appropriate mitigation and management measures agreed upon<br>– Ensure appropriate supervision of all activities<br>– Raise awareness and sensitize employees about contentious issues such as stock theft and poaching<br>– Accidents and incidents need to be reported to project manager and recorded in incident register | |
| Exploration activities | **Community** | Triggers job creation, skills development and opportunities for the local economy | Beneficial<br>Direct<br>Reversible<br>Minor<br>Short term<br>Local<br>Possible | Medium | Low | Low (2) | – Maximize local employment<br>– As far as possible promote local procurement<br>– Enhance development of local skills where possible | Low beneficial |

### 7.1.1 Further Consideration: Noise and Visual impacts

Exploration and mining activities have the potential to disrupt the sense of place, a collective term to describe the special and uniqueness of an area, mostly through the amplifying effects of noise, dust, machinery movements, and visual intrusion. Collectively, the activities have a negative impact on the naturalness of the landscape with the result to temporarily alter and affect the lifestyles of receptors (neighbours, farm owners, tourists). Such disturbances brought about by exploration activities are often-short term and reversible. For the duration of the proposed project, communication with the affected parties and key stakeholders shall be maintained. In the event where the drill site is located in proximity to the receptors, measures will be taken to reduce the visual impacts.

Through the application of the EIA methodology presented in Section 2 the conclusion of the assessment is that with additional mitigation, the significance of effect is expected to be minor. No additional studies are considered necessary to further assess this impact.

**TABLE 18 - SUMMARY OF EFFECTS**

| ACTIVITY | RECEPTOR | IMPACT | NATURE OF IMPACT | VALUE & SENSITIVITY | MAGNITUDE OF CHANGE | SIGNIFICANCE OF IMPACT |
|---|---|---|---|---|---|---|
| Placement and operations of heavy machinery and drill rigs, equipment and the creation of laydown areas on site | Neighbours / farm owners / tourists | Visual impacts (obscure views, create visual contrast, dust, intrusive objects), movement of heavy machinery, nuisance (noise), loss of naturalness | Adverse<br>Direct<br>Reversible<br>Local / on-site<br>Short term<br>Certain | Medium | Minor | Minor Adverse |

The following additional mitigation measures have been identified in addition to those presented in the EMP and shall be communicated to the proponent to ensure environmental effects are minimised as reasonably practicable:

- Interested and affected parties will be communicated to prior to the commence of the exploration activities
- Reasonable time frames for duty will be place i.e. no drilling when it is dark
- Site notice of project will be available at the site during the course of the proposed project
- Adequate procedures for drilling activities will be encouraged i.e. no hammering of drill rods with steel hammers
- Drill equipment shall be suitably positioned to ensure that noisy equipment is as far away from human receptors as possible
- Noise suppression measures shall be applied by all drilling staff (e.g. earmuffs are mandatory) and if drilling occurs in locations that may affect residents

- Residents shall be provided at least two weeks' notice of drilling operations within 1km of their property, and
- The proponent shall undertake continual engagement with residents.

The potential impact therefore is not considered significant as it does not widely exceed recognised levels of acceptable change; does not threaten the integrity of the receptors, nor is it material to the decision-making.

# 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.

**On this basis, it is of the opinion of ECC that an environmental clearance certificate could be issued, on conditions that the management and mitigation measures specified in the EMP are implemented and adhered to.**

# REFERENCES

BDO Namibia. (2019). From https://www.bdo.com.na/en-gb/industries/natural-resources/mining-in-namibia

Boni, M., Terracciano, R., Evans, N., Laukamp C., Schneider J., & BechstäDt T. (2007). Genesis of Vanadium Ores in the Otavi Mountainland, Namibia. Germany

City population. (2020). Namibian population statistics. Retrieved from www.citypoulation.de/en/namibia/cities/

Government of the Republic of Namibia (GRN) (2008) Namibian Draft Procedures and Guidance for Environmental Impact Assessment and Environmental Management Plan. Windhoek: GRN.

Info-Namibia. (2020). Tsumeb, Namibian Mining Town. Retrieved from https://www.info-namibia.com/activities-and-places-of-interest/otavi/tsumeb

Institute for Health Metrics and Evaluation (IHME) 2016. Namibia- State of the nation's health: Findings from the global burden of disease. Seattle: IHME

International Finance Corporation. (2017). A Guide to Biodiversity for the Private Sector. The Social and Environmental Impact Assessment Process.

International Finance Corporation. (2012). IFC Performance Standards on Environmental and Social Sustainability. The World Bank.

Iowa State University. (2019). Retrieved from https://mesonet.agron.iastate.edu/sites/windrose.phtml?network=NA__ASOS&station=FYWW

Mendelshon, J., Jarvis, A., Roberts, C., & Robertson, T. (2002). Atlas of Namibia; A Portrait of the Land and its People. Cape Town: David Philip Publishers.

Ministry of Environment and Tourism (MET), Ministry of Mines and Energy (MME). (2018). National Policy on the Prospecting and Mining in Protected Areas . Windhoek: Ministry of Environment and Tourism, Ministry of Mines and Ener.

Ministry of Mines and Energy. (2018, August). Mineral Rights and Resources Development . From Ministry of Mines and Energy: http://www.mme.gov.na/mines/mrrd/

Namibia Statistics Agency. (2011). Namibia 2011 Population and housing census main report. Windhoek.

Namibia Statistics Agency. (2017). Namibia Labour Force Survey 2016 Report. Windhoek: Namibia Statistics Agency.

Namibia Statistics Agency. (2018). Namibia Labour Force Survey 2018. Windhoek: Namibia Statistics Agency.

Tsumeb.com. (2020). An introduction to the geology of the Tsumeb Mine. Retrieved from http://www.tsumeb.com/en/geology/geology-of-the-tsumeb/

# APPENDIX A- EMP

# APPENDIX B - NON-TECHNICAL SUMMARY

# APPENDIX C- EVIDENCE OF PUBLIC CONSULTATION

The following was advertised in the Namibian newspaper on the 24th June and 1st July 2020,



Photo: forums.vwvortex.com

# Ford, Volkswagen sign agreements

FORD Motor Company and Volkswagen AG recently signed agreements expanding their global alliance to meet the rapidly evolving needs of their respective customers in Europe and other regions by leveraging complementary strengths in mid-size pickup trucks and commercial and electric vehicles.

Plans for the agreements were first announced by Ford and Volkswagen last July.

The companies expect the alliance to enhance ownership experiences for current and future customers by more rapidly innovating vehicle offerings, incorporating relevant new technologies, delivering better utility and offering more model choices. They anticipate continued growth in global industry demand for commercial vehicles and for high-performing electric vehicles to add valuable scale to their individual product portfolios.

THE ALLIANCE WILL:

- **Produce a medium pickup** truck engineered and built by Ford, for sale by Volkswagen as the Amarok, starting in 2022 within the Volkswagen Commercial Vehicles line-up
- **Further strengthen the** commercial-vehicles businesses of both companies as early as 2021 - with a city delivery van based on the latest Caddy model, developed and built by Volkswagen Commercial Vehicles and later a one-tonne cargo van created by Ford, and
- **Lead to a highly differentiated** Ford electric vehicle for Europe by 2023, built on Volkswagen's Modular Electric Drive, or MEB, toolkit, expanding on Ford's zero-emission capabilities in the region.

During the lifecycles of the products, the companies expect to produce up to a combined eight million of the medium pickup truck and both commercial vans included in the commercial relationships.

"In light of the Covid-19 pandemic and its impact on the global economy, more than ever it is vital to set up resilient alliances between strong companies," said Volkswagen Group chief executive officer Herbert Diess.

"This collaboration will efficiently drive down development costs, allowing broader global distribution of electric and commercial vehicles, and enhance the positions of both companies."

The Volkswagen/Ford alliance does not include cross-ownership between the companies, which will remain competitors in the marketplace.

—*QuickPic*

# I've fought racism all my life – Lewis Hamilton

LEWIS Hamilton has promised to create his own commission to help increase black participation in Formula One.

The six-time world champion also opened up about his "deep pain, anguish and frustration" at watching George Floyd's killing last month, which stirred recollections of the racist abuse he suffered on his journey from Stevenage to the top of motor racing.

Those emotions led him to make the most impassioned comments of his career in a series of Instagram posts over recent weeks.

"For some of those who saw my social media, it may be hard to understand why I reacted the way I did," said Hamilton (35), who participated in a #BlackLivesMatter march in London recently.

"From the outside looking in, the life of an unintended American martyr in the city of Minneapolis, a place I've never visited, has nothing to do with me.

"But an all-too-common display of police brutality in the US has led to a global awakening of the systemic racism witnessed and experienced by every person of colour across the world, and something that is only too familiar to me. In the UK, it might be less about police brutality and more about the implicit bias in our systems or things that society does to let us know we're different.

"It's telling black women they're too confident, treating black men like a threat, or asking us to change our natural appearance to look more 'professional'.

"The deadly complicity in the three officers who watched on in silence as Floyd's life was extinguished by their colleague brought to light so much of the anger I thought I'd suppressed."

Hamilton's father, Anthony, is black, and mother, Carmen, is white.

Photo: iol.co.za

Lewis Hamilton

Struggling for funds as Lewis started out in karting, his dad took on three jobs to allow his promising boy to continue.

A few years later, when Lewis was 13, McLaren boss Ron Dennis stepped in as his principal sponsor. Now Hamilton, still F1's only black driver, is Britain's richest sportsman with a fortune estimated at £224 million (N$4,8 billion).

"I've been fighting the stigma of racism throughout my racing career - from kids throwing things at me while I was karting to being taunted by fans in black face at a 2007 Grand Prix, one of my first F1 races.

"The unchanged make-up of the F1 community throughout my career makes it feel like only a certain type of person is truly welcome in this sport.

"Even now the media asks me different questions from those they ask my competitors and make accusations directly and indirectly - you're not British enough, not humble enough, not loved enough by the public. Being the first black anything is a proud and lonely walk."

Hamilton recently made his racism concerns known to F1 bosses and will "take a knee" when the season restarts in Austria during the first weekend of July.

Prior to that, Formula One's owner, Liberty Media, will set out its latest proposals aimed at improving the sport's racial imbalance.

"Few members of Hamilton's Mercedes team are black, a disparity the manufacturer has indicated they plan to redress.

Writing in the *Sunday Times*, Hamilton turned his attention to education, calling it the "leveller, the path to opportunity".

"I have been working with the Royal Academy of Engineers to create The Hamilton Commission," he said.

"This is a research partnership dedicated to exploring how motorsport can be used as a vehicle to engage more young people from black backgrounds in science, technology, engineering and mathematics (STEM) subjects and, ultimately, employ them on our team or in other engineering sectors.

"This will not be arm's-length research. We want to hear from the young people and graduates who deal with these challenges every day. We want to bring in leaders from policy and business who are committed to the activation of research recommendations. I hope The Hamilton Commission enables real, tangible and measurable change.

"When I look back in 20 years, I want to see the sport that gave a shy, working-class black kid from Stevenage so much opportunity, become as diverse as the complex and multicultural world we live in." —*iol.co.za*

**NOTICE OF ENVIRONMENTAL ASSESSMENT & PUBLIC PARTICIPATION PROCESS**
**EXPLORATION ACTIVITIES ON EPL 7341 & 7402**
**OSHIKOTO, KUNENE AND OTJOZONDJUPA REGIONS, 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:** | **Votorantim Metals Namibia (Pty) Ltd** |
| **Environmental Assessment Practitioner (EAP):** | **Environmental Compliance Consultancy** |
| **Location:** | **Oshikoto, Kunene & Otjozondjupa Regions, Namibia** |

**Project:** Exploration activities on EPL 7341 & 7402 for base and rare metals, industrial minerals, precious metals and semi-precious stones in the Oshikoto, Kunene and Otjozondjupa Regions, Namibia.

**Proposed activity:** The proponent proposes to carry out low impact, non-intrusive exploration activities for base and rare metals, industrial minerals, precious metals and semi-precious stones on EPL 7341 in the area east of Tsumeb and northwest of Grootfontein in the Oshikoto and Otjozondjupa Regions and on EPL 7402 in the area near the C39 road, west of Otavi and northeast of Outjo in the Kunene and Otjozondjupa Regions. Exploration methods may include geochemical survey (soil and rock sampling), geophysical survey (electromagnetic surveys), drilling and drill-core sampling.

**Application for environmental clearance certificate:** In terms of the Environmental Management Act, No. 7 of 2007, ECC on behalf of Votorantim Metals Namibia (Pty) Ltd is required to apply for environmental clearance to the competent authority and the Ministry of Environment, Forestry and Tourism for the above-mentioned project.

**Purpose of the review and comment period:** The purpose of the review and comment period is to present the proposed project and to afford I&APs an opportunity to comment on the project to ensure that all issues and concerns are captured and considered in the assessment.

**Review period:** The review and comment period is effective from **24 June 2020 – 15 July 2020**.

**How you can participate:** ECC is undertaking the required environmental assessment and public participation process in terms of the act. Interested and affected parties (I&APs) and Stakeholders are required to register for the project at: https://eccenvironmental.com/projects/

Environmental Compliance Consultancy
Registration Number: CC/2013/11404
Members: Mr JS Bezuidenhout or Mrs J Mooney
PO Box 91193, Klein Windhoek
Tel: +264 81 669 7608
E-mail: info@eccenvironmental.com
Website: http://www.eccenvironmental.com
Project ID: ECC-88-286-ADT-2-B

Votorantim Metais

## SMS Of The Day

WHAT a fallacy and miscarriage of justice! With whom did Swapo, by extension Plan, reconcile, if former Koevoet fighters are still excluded from the veterans of the liberation struggle programme? Perhaps only with their former bosses who now sit comfortably in parliament enjoying all privileges and benefits with no retribution whatsoever!

## Food For Thought

**OF course one can tear down remnants of the colonial era, but is this a clever move? In many South American countries, colonial statues, buildings and avenues are preserved and well maintained – often with new explanatory plaques – because they draw millions of tourists to the cities. Is this not the smarter way to deal with the past?**

## Bouquets & Brickbats

BERNADUS Swartbooi, you are very right. Namibia has transited from racism to tribalism. Reconciliation is not necessarily a problem today but tribalism is practised in broad daylight. The vetting process is used as smokescreen to ensure that only a certain tribe benefits and the other tribes are left out. People of that chosen tribe are employed even on entry levels as cleaners and drivers under the disguise of "born frees" or "struggle kids". Vulnerable youth from other tribes are not considered. Tribalism must be addressed and not only reconciliation.

**IT'S A pity that the Supreme Court did not have the courage of its Malawian counterpart which ordered a re-run of the country's disputed elections, and the opposition won. Is that what would have happened here if the court was truly independent?**

MINISTER of finance Iipumbu Shiimi, can you please help us get our money from the SME Bank. I have over N$25 000 of my pension deposited into that bank. How long must we wait to get our money? We have waited for three years already since the closure of the bank.

## Abortion Issues

**ARTICLE 1 of the Namibian Constitution establishes Namibia as a secular and democratic state. The church and the state should be kept separate. Religious fundamentalism should not determine if the abortion law should be changed. We know that women induce abortions under conditions that threaten their lives.**

DEAR compatriots, let the Constitution be our guide and give women the right to choose. Those whose beliefs are against abortions will not be compelled to have them. They, however, cannot continue denying others the right to choose.

**FELLOW Namibians, please stop deciding for other people on abortion. Let girls of 18 and above decide for themselves. Your religious beliefs are your own, so please don't force them onto others. The churches should tell their congregants what to do and not the country's secular government.**

## EIG Money

Iipumbu Shiimi

FINANCE minister Iipumbu Shiimi, we want to know why some people got the N$750 emergency income grant while others did not?

**WHEN will we who did not receive the N$750 Covid-19 money, get our share? We are demanding answers from the Ministry of Finance.**

## Covid-19

I WANT to thank the Damara headmen who are assembling their communities to discuss the impact of the coronavirus on our lives. That is really praiseworthy because we cannot just rely on the government but we must also assist the government. Only if the headmen speak to their people will they probably understand. I challenge headmen from other tribes to follow suit. Stand up and make your voices heard.

**WITH the daily Covid-19 cases in Erongo region going up, I recommend that the sale of alcohol be prohibited again. People are sharing alcohol and they don't wear masks sometimes because at that moment they would be intoxicated.**

## To The President

THE employment inequality is reaching alarming levels due to so called "vetting process" which favours a certain tribe and disqualifies other ethnic groups in Namibia. Those spearheading the "vetting" are all from the same tribe and vet in favour of their tribesmen only. The rest are left out. This process must be done away with. Namibia does not need its citizens being vetted 30 years after independence. President Hage Geingob, please intervene and do away with this process.

**DEAR President, my respect for you is declining. It is already terrible to see all the corruption taking place with high ranking officials and now you want to make us all co-murderers by passing the abortion law? All lives matter! How can you even contemplate such a thing? I thought we are a Christian nation, but this is very far from it.**

## From The Regions

OFFICE of the Judiciary and Magistrate's Commission, are you aware of the practices at your courts at Keetmanshoop and Bethanie? The accused are treated like animals by the magistrates. Our rights as human beings and prisoners are violated and we are not even given lunch, yet the court staff go for lunch and the courts only resume when it pleases them and close as late as 18h25 or when they feel it necessary. This would be after they have issued warrants of arrest for people who were present at court and we are relocated to different towns. Is that fair?

**SWAPO-LED Keetmanshoop councillors, you achieved a lot between 2017 and 2020 as far as housing, electrification, roads, traffic lights, etc, are concerned, whether sick or jealous people like it or not! Yes there's still a lot to be done but thumbs up for now. Don't worry about them and ignore the lies going around on social media. To those administrators revealing council's confidential information, we know you and your agents. Watch out for 25 November.**

WE, the residents of Khorixas, want to express our concerns because our lives are at risk. We understand that Arandis, Swakopmund and Walvis Bay are on lockdown. But surprisingly people are still driving from those three towns to Khorixas. Are there no roadblocks on those roads or is there a private and secret road that these people are using!

**MUNICIPALITY of Gobabis, why is the process of building toilets in the informal settlements so slow? Please prioritise this issue because you must already be aware of the consequences of open defecation and poor hygiene to people's lives.**

## Law & Order

INSPECTIOR general Sebastian Ndeitunga, please promote those junior officers who used their own meagre salaries to obtain academic qualifications. The officers dug deep into their pockets for study fees, so please identify them and give them something as motivation.

**OFFICE of the Ombudsman, please visit Bethanie Police Station and investigate a senior officer who is using the police vehicle to drive to his farm. Is that not taxpayers' money going to waste and is it not a serious case of corruption?**

## Education

MINISTRY of education, can you please change your directive and start school with Grade 10 and first see how it goes. I think Grades 1 to 3 will not adhere to the directive to wear masks at all times. Children are just children and they would just share their masks as they even have a bite on each other's fruit, etc.

**WE, the pupils of Kamanjab Combined School, are not happy at the school's hostel. We share one toilet pot and one shower. The school management should be proactive and repair the dysfunctional facilities instead of putting our lives at risk.**

WE would like to ask the ministry of education why only the pupils from Grade 1 to 7 must wait to start school next year? Why must only Grade 8 to 10 pupils resume classes now? We are tired of staying home doing nothing.

## Labour

**THE Municipality of Swakopmund security services tender: management is practising favouritism by awarding tenders to companies that do not pay their workers full salaries let alone pay them on time. We, the workers of Kahatjipara Security Service, have been badly treated since last year and we are not appreciated at all.**

WE, the workers of Best Cheer Investment Namibia Marble and Granite Mining, feel left out in our own motherland because of our very low salaries, pathetic health and safety and poor living conditions while this is a very big company. Someone who has worked for 10 years is still on a basic salary of N$5 000. Ministry of Mines and Energy, please investigate this.

**ROADS Contractor Company is paying idle workers sitting at home, but they recently employed a lot of youths from Omaheke region to build the road between Aminuis and Aranos.**

## Service Please

MULTICHOICE Namibia, why does it appear my DStv service is being shared and I cannot access it at anytime and yet I am the only one paying for it?

## Lost And Found

**I, NGHILIFAVALI Shishiveni Wellem, lost a wallet containing my ID card, voter's card and other personal documents. If found, please contact me on 081 488 5886 or 081 454 0800.**


## Tell it like it is!

**MAKE your views known. It costs N$1 for 160 characters.**

**You will receive an acknowledgement for 'telling it like it is!'**

**Selected views will be published in the newspaper.**

**We are subsidising the costs and are not making profit from this service to the public.**

**Official responses only may be emailed to: smsfeedback@namibian.com.na**

**NB: We would also like to call on members of the public to exercise good judgement when sending their comments to the newspaper. *The Namibian* publishes the SMSes to promote fair and civil discussion.**

Please note that the opinions expressed do not necessarily reflect the views of *The Namibian*.

**NOTICE OF ENVIRONMENTAL ASSESSMENT & PUBLIC PARTICIPATION PROCESS**
**EXPLORATION ACTIVITIES ON EPL 7341 & 7402**
**OSHIKOTO, KUNENE AND OTJOZONDJUPA REGIONS, 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:** Votorantim Metals Namibia (Pty) Ltd
**Environmental Assessment Practitioner (EAP):** Environmental Compliance Consultancy
**Location:** Oshikoto, Kunene & Otjozondjupa Regions, Namibia

**Project:** Exploration activities on EPL 7341 & 7402 for base and rare metals, industrial minerals, precious metals and semi-precious stones in the Oshikoto, Kunene and Otjozondjupa Regions, Namibia.

**Proposed activity:** The proponent proposes to carry out low impact, non-intrusive exploration activities for base and rare metals, industrial minerals, precious metals and semi-precious stones on EPL 7341 in the area east of Tsumeb and northwest of Grootfontein in the Oshikoto and Otjozondjupa Regions and on EPL 7402 in the area near the C39 road, west of Otavi and northeast of Outjo in the Kunene and Otjozondjupa Regions. Exploration methods may include geochemical survey (soil and rock sampling), geophysical survey (electromagnetic surveys), drilling and drill-core sampling.

**Application for environmental clearance certificate:** In terms of the Environmental Management Act, No. 7 of 2007, ECC on behalf of Votorantim Metals Namibia (Pty) Ltd is required to apply for environmental clearance to the competent authority and the Ministry of Environment, Forestry and Tourism for the above-mentioned project.

**Purpose of the review and comment period:** The purpose of the review and comment period is to present the proposed project and to afford I&APs an opportunity to comment on the project to ensure that all issues and concerns are captured and considered in the assessment.

**Review period:** The review and comment period is effective from **24 June 2020 – 15 July 2020**.

**How you can participate:** ECC is undertaking the required environmental assessment and public participation process in terms of the act. Interested and affected parties (I&APs) and Stakeholders are required to register for the project at: https://eccenvironmental.com/projects/

Environmental Compliance Consultancy
Registration Number: CC/2013/11404
Members: Mr JS Bezuidenhout or Mrs J Mooney
PO Box 91193, Klein Windhoek
Tel: +264 81 669 7608
E-mail: info@eccenvironmental.com
Website: http://www.eccenvironmental.com
Project ID: ECC-88-286-ADT-2-B

Votorantim Metais

The following was advertised in the Informante on the 24th June and 1st July 2020, (online newspaper).

firm but fair **Informanté**

HOME | NEWS | BUSINESS | ENVIRONMENT | ENTERTAINMENT | SPORTS | OPINION | CLASSIFIEDS | TRUSTCO | INFORMANTÉ RADIO

LATEST NEWS

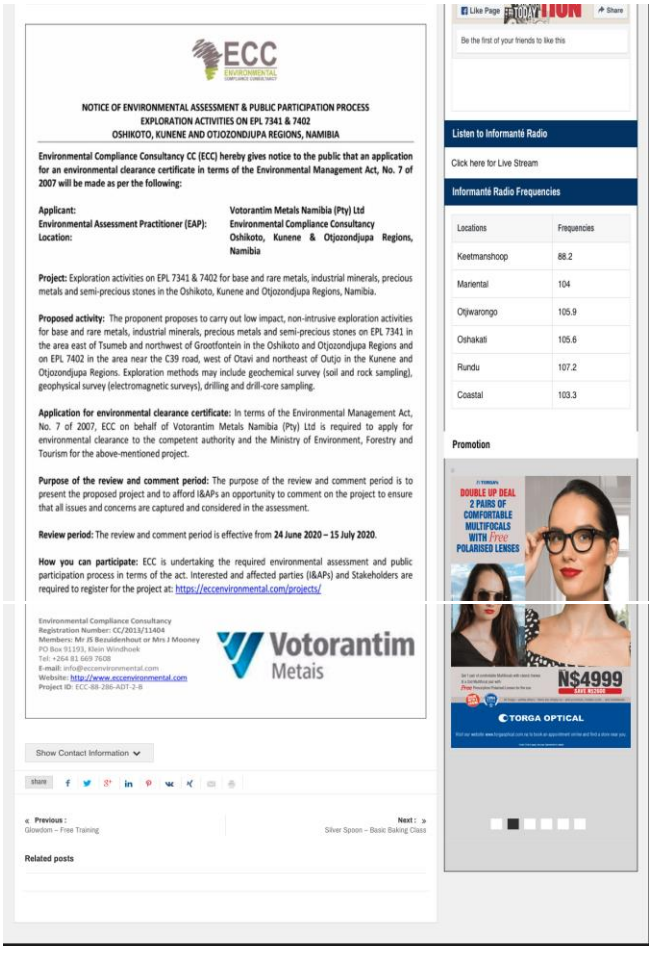
**Project:** Exploration activities on EPL 7341 & 7402 for base and rare metals, industrial minerals, precious metals and semi-precious stones in the Oshikoto, Kunene and Otjozondjupa Regions, Namibia.

**Proposed activity:** The proponent proposes to carry out low impact, non-intrusive exploration activities for base and rare metals, industrial minerals, precious metals and semi-precious stones on EPL 7341 in the area east of Tsumeb and northwest of Grootfontein in the Oshikoto and Otjozondjupa Regions and on EPL 7402 in the area near the C39 road, west of Otavi and northeast of Outjo in the Kunene and Otjozondjupa Regions. Exploration methods may include geochemical survey (soil and rock sampling), geophysical survey (electromagnetic surveys), drilling and drill-core sampling.

**Application for environmental clearance certificate:** In terms of the Environmental Management Act, No. 7 of 2007, ECC on behalf of Votorantim Metals Namibia (Pty) Ltd is required to apply for environmental clearance to the competent authority and the Ministry of Environment, Forestry and Tourism for the above-mentioned project.

**Purpose of the review and comment period:** The purpose of the review and comment period is to present the proposed project and to afford I&APs an opportunity to comment on the project to ensure that all issues and concerns are captured and considered in the assessment.

Environmental Compliance Consultancy (ECC)



ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

**NOTICE OF ENVIRONMENTAL ASSESSMENT & PUBLIC PARTICIPATION PROCESS**
**EXPLORATION ACTIVITIES ON EPL 7341 & 7402**
**OSHIKOTO, KUNENE AND OTJOZONDJUPA REGIONS, 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:** | **Votorantim Metals Namibia (Pty) Ltd** |
| **Environmental Assessment Practitioner (EAP):** | **Environmental Compliance Consultancy** |
| **Location:** | **Oshikoto, Kunene & Otjozondjupa Regions, Namibia** |

**Project:** Exploration activities on EPL 7341 & 7402 for base and rare metals, industrial minerals, precious metals and semi-precious stones in the Oshikoto, Kunene and Otjozondjupa Regions, Namibia.

**Proposed activity:** The proponent proposes to carry out low impact, non-intrusive exploration activities for base and rare metals, industrial minerals, precious metals and semi-precious stones on EPL 7341 in the area east of Tsumeb and northwest of Grootfontein in the Oshikoto and Otjozondjupa Regions and on EPL 7402 in the area near the C39 road, west of Otavi and northeast of Outjo in the Kunene and Otjozondjupa Regions. Exploration methods may include geochemical survey (soil and rock sampling), geophysical survey (electromagnetic surveys), drilling and drill-core sampling.

**Application for environmental clearance certificate:** In terms of the Environmental Management Act, No. 7 of 2007, ECC on behalf of Votorantim Metals Namibia (Pty) Ltd is required to apply for environmental clearance to the competent authority and the Ministry of Environment, Forestry and Tourism for the above-mentioned project.

**Purpose of the review and comment period:** The purpose of the review and comment period is to present the proposed project and to afford I&APs an opportunity to comment on the project to ensure that all issues and concerns are captured and considered in the assessment.

**Review period:** The review and comment period is effective from **24 June 2020 – 15 July 2020.**

**How you can participate:** ECC is undertaking the required environmental assessment and public participation process in terms of the act. Interested and affected parties (I&APs) and Stakeholders are required to register for the project at: https://eccenvironmental.com/projects/

Environmental Compliance Consultancy
Registration Number: CC/2013/11404
Members: Mr JS Bezuidenhout or Mrs J Mooney
PO Box 91193, Klein Windhoek
Tel: +264 81 669 7608
E-mail: info@eccenvironmental.com
Website: http://www.eccenvironmental.com
Project ID: ECC-88-286-AUT-2-R

Votorantim Metais

Show Contact Information

share

« Previous : Glowdom – Free Training

Next : » Silver Spoon – Basic Baking Class

Related posts

Like Page | Share

Be the first of your friends to like this

**Listen to Informanté Radio**

Click here for Live Stream

**Informanté Radio Frequencies**

| Locations | Frequencies |
|---|---|
| Keetmanshoop | 88.2 |
| Mariental | 104 |
| Otjiwarongo | 105.9 |
| Oshakati | 105.6 |
| Rundu | 107.2 |
| Coastal | 103.3 |

**Promotion**

# SITE NOTICE

**NOTICE OF ENVIRONMENTAL ASSESSMENT AND PUBLIC PARTICIPATION PROCESS EXPLORATION ACTIVITIES ON EPL 7341**

**OSHIKOTO AND OTJOZONDJUPA REGIONS, NAMIBIA**

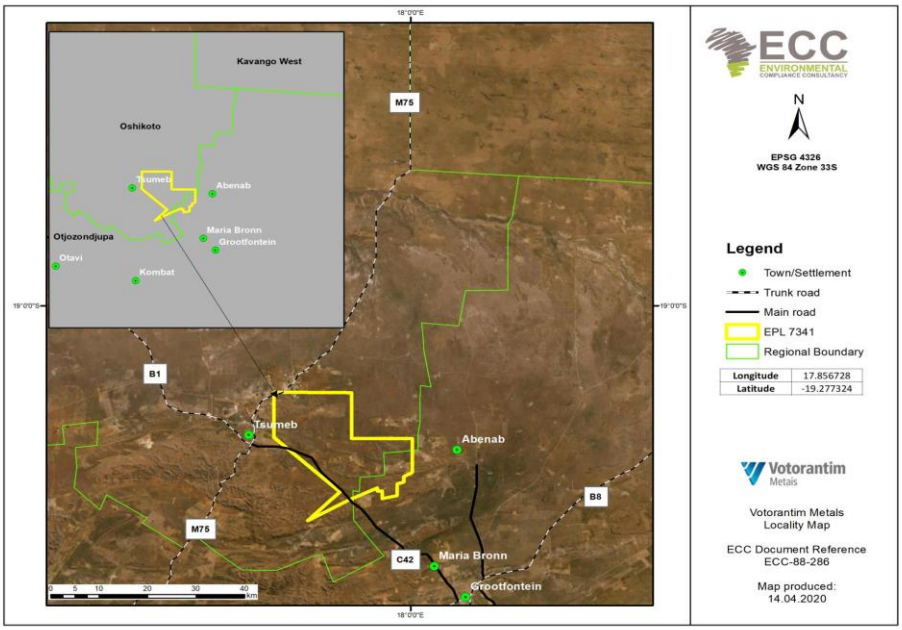
**Environmental Compliance Consultancy cc (ECC) hereby gives notice to the public that an application for an environmental clearance certificate in accordance with the Environmental Management Act, No. 7 of 2007 will be made as per the following:**

| | |
|---|---|
| **Applicant:** | **Votorantim Metals Namibia (Pty) Ltd** |
| **Environmental Assessment Practitioner (EAP):** | **Environmental Compliance Consultancy** |
| **Project ID:** | **ECC-88-286** |

**Project:** Exploration activities on EPL 7341 for base and rare metals, industrial minerals, precious metals and semi-precious stones in the Oshikoto and Otjozondjupa Regions, Namibia.

**Proposed activity:** The proponent proposes to carry out low impact, non-intrusive exploration activities for base and rare metals, industrial minerals, precious metals and semi-precious stones on EPL 7341 located in the area east of Tsumeb in the Oshikoto and Otjozondjupa Regions, Namibia. Exploration methods may include geochemical surveys (soil and rock sampling), geophysical surveys (electromagnetic surveys), drilling and drill-core sampling.

**Location:** East of Tsumeb and northwest of Grootfontein the Oshikoto and Otjozondjupa Regions, Namibia.




**Application for environmental clearance certificate:** In terms of the Environmental Management Act No. 7 of 2007, ECC on behalf of the proponent is required to submit an application for environmental clearance to the competent authority and the Ministry of Environment, Forestry and Tourism for the above-mentioned project.

**Purpose of the review and comment period:** As part of the public participation process, the purpose of the review and comment period is to present the proposed project and to afford interested and affected parties (I&APs) an opportunity to comment on the project to ensure that all issues and concerns are captured and considered in the assessment.

**Contact:** Mr JS Bezuidenhout or Mrs J Mooney
**Environmental Compliance Consultancy**
**Registration Number CC/2013/11404**
PO Box 91193, Klein Windhoek
Tel: +264 81 669 7608
**E-mail:** info@eccenvironmental.com
**Website:** http://www.eccenvironmental.com

# APPENDIX D - ECC CVS