ENVIRONMENTAL COMPLIANCE CONSULTANCY






ECC-88-234-REP-03-D

ENVIRONMENTAL SCOPING REPORT

EXPLORATION ACTIVITIES ON EPL 7214 FOR BASE AND RARE METALS, INDUSTRIAL MINERALS AND PRECIOUS METALS IN THE KUNENE REGION

PREPARED FOR

Votorantim Metais

OCTOBER 2019

PO BOX 91193 Windhoek Namibia
Environmental Compliance Consultancy CC
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TITLE AND APPROVAL PAGE

Project Name:	Exploration activities on EPL 7214 for Base and Rare Metals, Industrial Minerals and Precious Metals in the Kunene Region.
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Confidentiality

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EXECUTIVE SUMMARY

Votorantim Metals Namibia (Pty) Ltd seeks to undertake exploration activities on Exclusive Prospecting Licence (EPL) 7214 for base and rare metals, industrial minerals, and precious metals in the Kunene region. EPL 7214 is located in the Kunene region, 40 km west of Outjo. The C39 road to Outjo runs along the southern boundary of the EPL and will be the main access road to the EPL. The northern portion of the EPL will be reached from a secondary road branching south off the C40.

The proposed project triggers listed activities in terms of the Environmental Management Act (EMA) 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 EMA. This Environmental Scoping Report and Environmental Management Plan (EMP) shall be submitted to the competent authority (Ministry of Mines and Energy and Ministry of Environment and Tourism) as part of the application for the Environmental Clearance Certificate.

The proposed exploration on EPL 7214 will include soil and rock sampling, geological mapping, electromagnetic and geophysical surveys, and drilling and core sampling. Some vegetation (excluding specially protected plant species) may be cleared for access tracks, to create working areas, and for the installation and development of exploration drill holes. However, a vegetation management plan will be included in the EMP in order to minimise damage. The exploration activities are expected to be conducted over a 3-year 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 7214 is located within the trees and shrubs biome, with the vegetation types dominated by mopane and thorn bush woodland. The vegetation structure includes sparse and dense shrubland and woodland. There is a spatial vegetation distribution within the EPL depending on the localised water table among other factors. These includes large sensitive trees such as *Combretum imberbe, Colophospermum mopane* and *Ficus sycomorous*. The area supports a medium-high terrestrial diversity of animal and plant life, with the plant diversity in the area supporting approximately 300 – 399 species.

EPL 7214 transverses nineteen (19) commercial farms to a lesser or greater extent. The land use is predominantly large and small livestock farming.

Through the scoping process, the surrounding environmental assessment was completed by undertaking a desktop review. 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:

- No hammering of drill rods with steel hammers when in proximity of houses;
- Noise suppression measures shall be applied 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

- 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.

Water is a scarce resource in Namibia and, as such, must always be utilized sustainably. The hydrology of the area made up of ephemeral streams and groundwater and the potential for contamination from the proposed activities is regarded as minimal. Protection of water quality is addressed in the EMP.

This study assessed that the creation of access tracks and drill campsites, where necessary, can potentially pose an environmental risk. Through further investigation, it was determined that the removal of vegetation for access is considered to be of low to moderate significance, however with additional mitigation, the significance can be reduced to minor. These additional mitigation measures will include:

- Use existing tracks and access roads wherever possible;
- No removal of large and established trees (tracks to go around);
- Where trees need to be removed, the regulatory permits must be obtained where necessary.

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 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

DEFINITIONS AND ABBREVIATIONS

DEA	Directorate of Environmental Affairs
EIA	Environmental Impact Assessment
EPL	Exclusive Prospecting Licence
EMP	Environmental Management Plan
IFC	International Finance Cooperation
I&AP	Interested and affected parties
MET	Ministry of Environment and Tourism
MME	Ministry of Mines and Energy
MPMRAC	Minerals (Prospecting and Mining Rights) Advisory Committee

1 INTRODUCTION

1.1 PURPOSE OF THIS REPORT

The purpose of this report is to present the findings of the scoping study for the proposed project. The proposed project is to undertake mineral exploration activities on Exclusive Prospecting Licence (EPL) 7214 for base and rare metals, industrial minerals and precious metals, which are described in detail throughout the report. This scoping report has been undertaken in terms of the requirements of the Environmental Management Act, 2007 and the Environmental Impact Assessment Regulations, 2007 (No. 30 of 2012) gazetted under the Environmental Management Act, 2007 (referred to herein as the EIA Regulations).

This scoping 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 and Tourism (MET) for review as part of the applications for an environmental clearance certificate.

This report has been prepared by Environmental Compliance Consultancy (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 Environmental Management Plan (EMP) (Appendix A) is also required in terms of the Environmental Management Act7, 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.

1.2 BACKGROUND OF THE PROPOSED PROJECT

Votorantim Metals Namibia (Pty) Ltd proposes to undertake mineral exploration activities on Exclusive Prospecting Licence (EPL) 7214 for base and rare metals, industrial minerals and precious metals in the Kunene region. EPL 7214 is located approximately 40 km west of Outjo. The C39 road to Outjo runs along the southern boundary across the EPL and will be the main access road to the prospect. (See FIGURE 1).

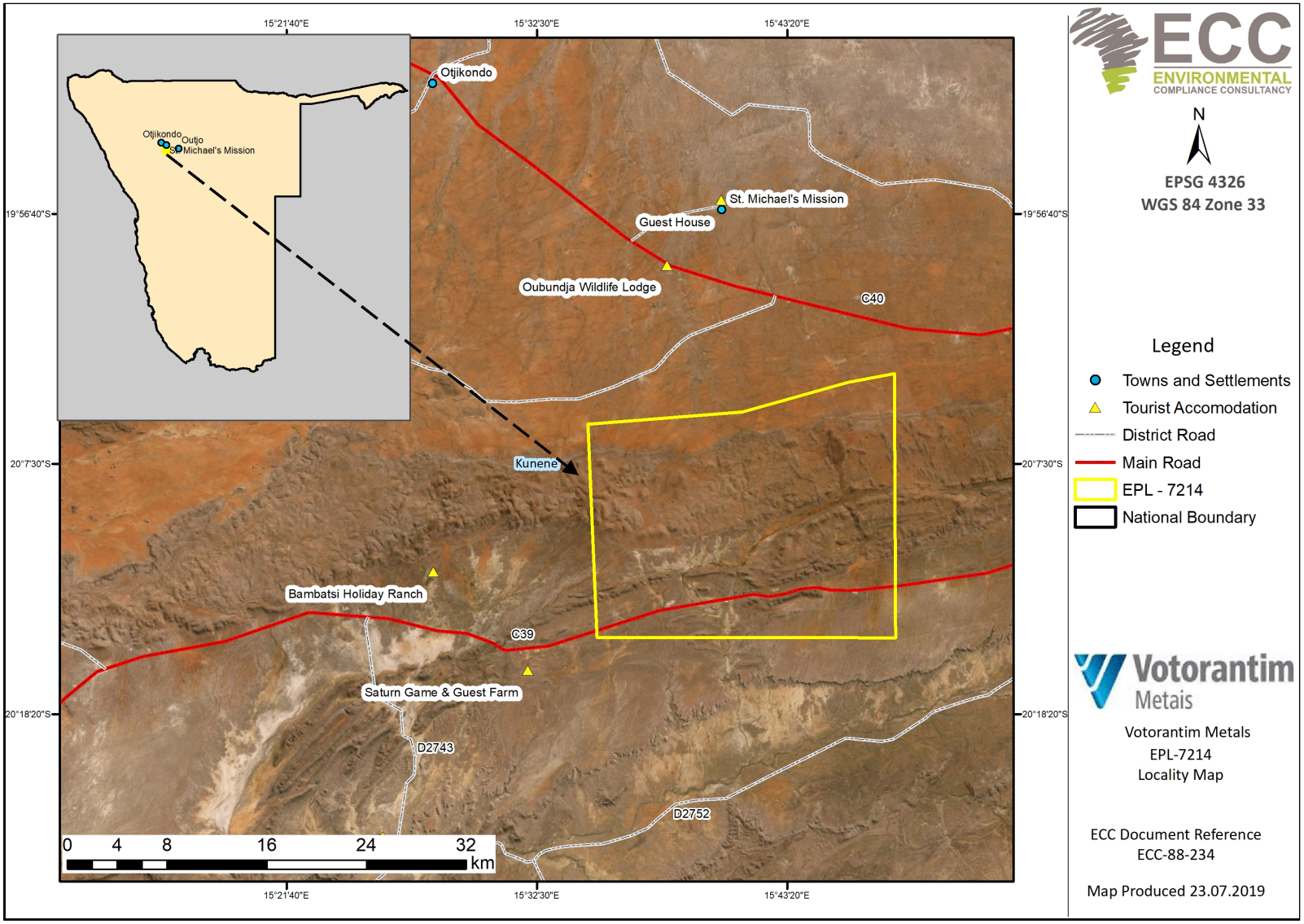

FIGURE 1 - LOCALITY MAP OF EPL 7214

1.3 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 Environmental Management Act, 2007 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), 1992
    - The proposed project requires a licence for the construction of exploration camps, 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 the EPL 7214

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

WATER RESOURCE DEVELOPMENT

- The abstraction of ground or surface water for industrial or commercial purposes
    - Required for the drilling of exploration boreholes, ground and surface water will be abstracted.

1.4 The Proponent of the Proposed Project

TABLE 1 – PROPONENT DETAILS

CONTACT	POSTAL ADDRESS	EMAIL ADDRESS	TELEPHONE
VOTORANTIM METALS NAMIBIA (PTY) LTD Ms Yvonne Natalie Hass (Manager)	P O Box 2184, Windhoek, Namibia	ext.yvonnenh@nexaresources.com	+264 61 221 016

1.5 Environmental Consultancy

ECC, a Namibian consultancy (registration number Close Corporation2013/11401), 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

1.6 REPORT STRUCTURE

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

TABLE 2 – ENVIRONMENTAL SCOPING REPORT SECTIONS

SECTION	TITLE	CONTENT
-	Executive Summary	Executive summary of the EIA
-	Acronyms	A list of acronyms used during the report
1	Introduction	This section introduces the EIA and provides background information on the proposed project, proponent and purpose of the report
2	Regulatory Framework	This chapter describes the Namibian environmental regulatory framework applicable to the project and how it has been considered in the assessment and the scoping report and EMP.
3	Methodology and approach to the EIA	This chapter presents the methodology applied to the EIA
4	Project Description	Presents a description of the proposed project and how the proposed project will be operated.
5	Environmental and social baseline	This chapter presents the predicted potential environmental and social effects arising from the proposed project, and the mitigation and management strategies to be applied to avoid or reduce the effects.
6	Environmental Assessment findings	This chapter predicts the potential environmental and social impacts arising from the project, the assessment of impacts including residual impact This 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) this informs the EMP
7	Environmental Management Plan	This chapter provides 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
8	Conclusions	Conclude the findings of the EIA
	References	A list of reference used for this report
Appendices	Appendices A-E	A list of appendices used for this report – Appendix A: Environmental Management Plan – Appendix B: Non-Technical Summary – Appendix C: Evidence of Public Consultation, Site notice, Newspaper adverts, Project Registered Post – Appendix D: List of Plant species – Appendix E: ECC CV's

2 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.

2.1 NATIONAL REGULATORY REGIME

TABLE 3 – LEGAL COMPLIANCE

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
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. 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"* 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: Exercise any right granted to him or her in terms of the provisions of this Act reasonably and in such manner that the rights and interests of the owner of any land to which such licence relates are not adversely affected, except to the extent to which such owner is compensated. Section 52 sets out that the holder of a mineral licence shall not exercise any rights conferred upon such holder by this Act or under any terms and conditions of such mineral licence (a) In, on or under any private land until such time as such holder- (i) Has entered into an agreement in writing with the owner of such land containing terms and conditions relating to the payment of compensation, or the owner of such land has in writing waived any right to such compensation and has submitted a copy of such agreement or waiver to the Commissioner.	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 regulations. This report presents the findings of the EIA. Works shall not commence until all conditions in the Act are met, which includes an agreement with the landowners and conditions of compensation have been agreed. The project shall be compliant with Section 76. With regards to records, maps, plans and financial statements, information, reports, and returns submitted. As the proponent will need to access privately owned land the proponent will ensure sections 50 and 52 are complied with.
Environmental Management Act, 2007 (Act No. 7 of 2007)	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.	This Environmental Scoping Report (and EMP) documents the findings of the environmental assessment undertaken for the proposed project,

NATIONAL REGULATORY REGIME	SUMMARY	APPLICABILITY TO THE PROJECT
and its regulations, including the Environmental Impact Assessment Regulation, 2012 (No. 30 of 2012)	It sets the principles of environmental management as well as the functions and powers of the Minister. The Act requires certain activities to obtain an environmental clearance certificate prior to project development. The Act states an EIA may be undertaken and submitted as part of the environmental clearance certificate application. The MET is responsible for the protection and management of Namibia's natural environment. The Department of Environmental Affairs under the MET is responsible for the administration of the EIA process.	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, 1956	This Act provides for "the control, conservation and use of water for domestic, agricultural, urban and industrial purposes; to make provision for the control, in certain respect and for the control of certain activities on or in water in certain areas". The Ministry of Agriculture Water and Forestry Department of Water Affairs is responsible for the administration of the Water Act. The Minister may issue a Permit in terms of the regulations 5 and 9 of the government notice R1278 of 23 July 1971 as promulgated under section 30 (2) of the Water Act no. 54 of 1956, as amended.	The Act stipulates obligations to prevent pollution of water. The EMP sets out measures to avoid polluting the water environment. Measures to minimise potential groundwater and surface water pollution are contained in the EMP. Should the project require drilling and abstraction of water from surface and or underground sources, an application should be submitted to the Minister of Agriculture Water and Forestry.
Soil Conservation Act No.76 of 1969	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.	Taken into consideration during the design of the works to be undertaken within EPL 7214 sites. 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. 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 is 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. 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.

2.2 POLICIES

2.2.1 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 Fifth National Development Plan (NDP5) that include 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.

2.3 LICENCES AND PERMITS

TABLE 4 - PERMITS AND LICENCES REQUIREMENTS

PERMITAND LICENCES	RELEVANT ATHORITY	VALIDITY/DURATION
WATER ABSTRACTION PERMITS	Ministry of Agriculture, Water and Forestry	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.

2.3.1 EXCLUSIVE PROSPECTING LICENCE

The EPL 7214 was granted on the 8th of May 2019 and expires on the 7th of May 2022. In terms of the Minerals (Prospecting and Mining) Act, 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 (Ministry of Mines and Energy, 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 (Ministry of Environment and Tourism, Ministry of Mines and Energy, 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) Advisory Committee (MPMRAC). 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 (Ministry of Environment and Tourism, Ministry of Mines and Energy, 2018).

3 METHODOLOGY AND APPROACH TO THE EIA

3.1 PURPOSE OF THE ENVIRONMENTAL IMPACT ASSESSMENT

The EIA process in Namibia is governed and controlled by the Environmental Management, 2007 and the EIA Regulations of 2012, which is administered by the Office of the Environmental Commissioner through the Department of Environmental Affairs (DEA) of the MET.

An EIA is a process of identifying, predicting, evaluating and mitigating the potential impacts of a proposed project on the natural and human environment. The aim of the scoping assessment and EIA process and subsequent report are to apply the principles of environmental management to proposed activities, reduce the negative and increase the positive impacts arising from a proposed project, provide an opportunity for the public to consider the environmental impacts of a proposed project through meaningful consultation, and to provide a vehicle to present the findings of the assessment process to competent authorities for decision making.

3.2 THE ASSESSMENT PROCESS

The EIA methodology applied to this EIA has been developed using the International Finance Corporation (IFC) standards and models, in particular Performance Standard 1, 'Assessment and management of environmental and social risks and impacts' (International Finance Corporation, 2017) (International Finance Corporation, 2012); Namibian draft procedures and guidance for EIA and EMP (Republic of Namibia, 2008); international and national best practice; and over 25 years of combined EIA experience. The process followed through the basic assessment is illustrated in FIGURE 2 and detailed further in the following sections.

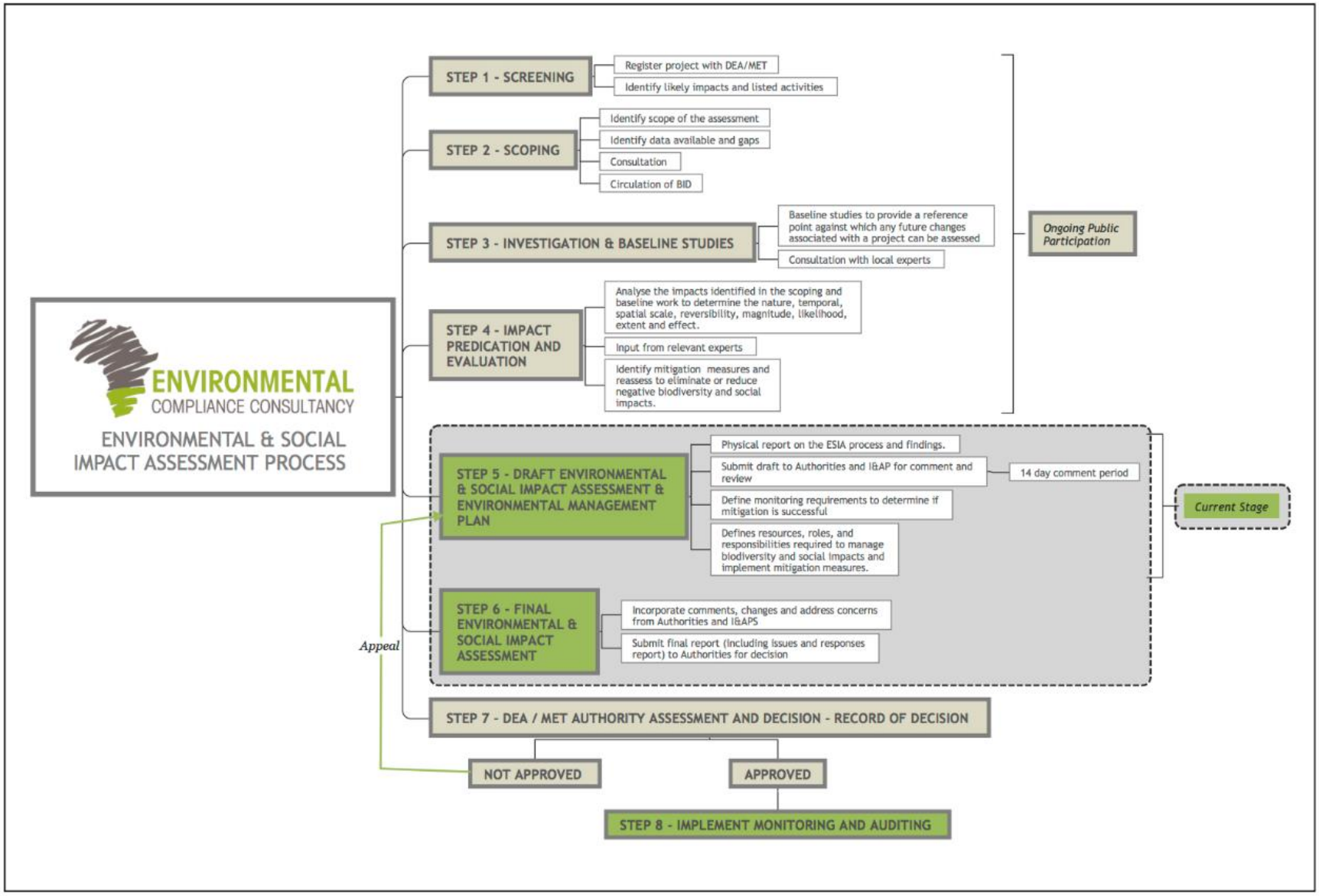

FIGURE 2 - ECC SCOPING PROCESS

3.3 METHODOLOGY FOR THE IMPACT ASSESSMENTS

This impact assessment is a formal process in which the effects of the project 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 project consent or to provide financial support.

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.

3.4 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, 2007 and associated Regulations, and if significant impacts may arise. During this process, the location, scale and duration of project activities are considered against the receiving environment to determine the approach to the EIA.

3.5 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. This conclusion is presented in Section 6.

3.6 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 desk-top study, focussing on environmental receptors that could be affected by the proposed project and verified through site data. The baseline studies are presented in Section 5.

3.7 IMPACT PREDICTION AND EVALUATION

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

3.8 EIA DETERMINATION OF SIGNIFICANCE

The evaluation and prediction 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 direct or indirect;

temporary/short term, long-term or permanent; and either beneficial or adverse. These are described as follows and thresholds are provided in TABLE 5, 6 and 7.

- The **sensitivity and value of a receptor** is determined by identifying how sensitive and vulnerable a receptor is to change, and the importance of the receptor (internationally, nationally, regionally and locally).

- The **nature and characteristics of the impact** is determined through consideration of the frequency, duration, reversibility and probability of the impact occurring.

- The **magnitude of change** measures the scale or extent of the change from the baseline condition, irrespective of the value. The magnitude of change may alter over time, therefore temporal variation is considered (short- term, medium-term; long-term, reversible, irreversible or permanent).

TABLE 5 - SENSITIVITY AND VALUE OF RECEPTOR

SENSITIVITY AND VALUE	DESCRIPTION
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.
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.
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.

TABLE 6 - NATURE OF IMPACT

NATURE	DESCRIPTION
Positive	An impact that is considered to represent an improvement on the baseline or introduces a positive change.
Negative	An impact that is considered to represent an adverse change from the baseline or introduces a new undesirable factor.
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
Extent / Geographic Scale	
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.
Duration	
Short-term	Impacts that are likely to last for the duration of the activity causing the impact and are recoverable
Medium-term	Impacts that are likely to continue after the activity causing the impact and are recoverable
Long-term	Impacts that are likely to last far beyond the end of the activity causing the damage but are

	recoverable over time
Reversibility	
Permanent /Irreversible	Impacts which are not reversible and are permanent
Temporary / Reversible	Impacts are reversible and recoverable in the future
Likelihood	
Certain	The impact is likely to occur
Likely	The impact is likely to occur under most circumstances
Unlikely	The impact is unlikely to occur

TABLE 7 - MAGNITUDE OF CHANGE

MAGNITUDE OF CHANGE	DESCRIPTION
Major	Loss of resource, and quality and integrity of resource; severe damage to key characteristics, features or elements; or Large-scale or major improvement of resources quality; extensive restoration or enhancement; major improvement of attribute quality.
Moderate	Loss of resource, but not adversely affecting its integrity; partial loss of/damage to key characteristics, features or elements; or Benefit to, or addition of, key characteristics, features or elements; improvements of attribute quality.
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 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.
Negligible	Very minor loss or detrimental alteration to one (or maybe more) characteristic, feature or element; or Very minor benefit to, or positive addition of, one (or maybe more) characteristic, feature or element.

The level of certainty has also been applied to the assessment to demonstrate how certain the assessment conclusions are and where there is potential for misinterpretation or a requirement to identify further mitigation measures, thereby adopting a precautionary approach. Where there is a low degree of certainty, monitoring and management measures can be implemented to determine if the impacts are worse than predicted and support the identification of additional mitigation measures through the life time of the proposed project. TABLE 8 provides the levels of certainty applied to the assessment, as well as a description.

TABLE 8 - LEVEL OF CERTAINTY

LEVEL OF CERTAINTY	DESCRIPTION
High	– Likely changes are well understood – Design/information/data used to determine impacts is very comprehensive – Interactions are well understood and documented – Predictions are modelled, and maps based on interpretations are supported by a large volume of data, and – Design/information/data has very comprehensive spatial coverage or resolution.

Medium	– Likely changes are understood – Design/information/data used to determine impacts include a moderate level of detail – Interactions are understood with some documented evidence – Predictions are modelled but not yet validated and/or calibrated, and – Mapped outputs are supported by a moderate spatial coverage or resolution.
Low	– Interactions are currently poorly understood and not documented. – Predictions are not modelled, and the assessment is based on expert interpretation using little or no quantitative data. – Design is not fully developed, or information has poor spatial coverage or resolution.

The significance of impacts has been derived using professional judgment and applying the identified thresholds for receptor sensitivity and magnitude of change (as discussed above) and guided by the matrix presented in TABLE 9. The matrix is applicable for impacts that are either positive or negative. The distinction and description of significance and whether the impact is positive, or negative is provided in TABLE 10.

TABLE 9 - GUIDE TO SIGNIFICANCE RATINGS

Sensitivity \ Magnitude of Change	Negligible	Minor	Moderate	Major
High	Minor (3)	Moderate (6)	Major (9)	Major (12)
Medium	Low (2)	Minor (4)	Moderate (6)	Major (8)
Low	Low (1)	Low (2)	Minor (3)	Moderate (4)

Significance is not defined in the Namibian EIA Regulations, however the Draft Procedure and Guidance for EIA and EMP states that the significance of a predicted impact depends upon its context and intensity. Accordingly, definitions for each level of significance has been provided in TABLE 9. These definitions were used to check the conclusions of the assessment of receptor sensitivity, nature of impact and magnitude of impact was appropriate.

TABLE 10 - SIGNIFICANCE DESCRIPTION

SIGNIFICANCE OF IMPACT	DESCRIPTION
Major (negative)	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.

Moderate (negative)	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.
Minor (negative)	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.
Low (negative)	Impacts are considered to be local factors that are unlikely to be critical to decision-making.
Low – Major (Beneficial)	Impacts are considered to be beneficial to the environment and society:

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 10 was also followed when determining the level of significance for a beneficial impact.

The significance of impacts has been derived using professional judgment and applying the identified thresholds for receptor sensitivity and magnitude of change, as well as the definition for significance. In most instances, moderate and major adverse impacts are considered as significant, however, there may be some instances where impacts are lower than this but are considered to be significant. The following thresholds were therefore used to double check if the assessment of significance has 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.

3.9 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.

A key aim of the consultation process is to inform stakeholders and interested and affected parties (I&AP) about the proposed project. The methods undertaken for the proposed project are detailed as follows, which are in line with the requirements of the EIA regulations.

3.9.1 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. The contact details for further enquiries are made available to all registered I&APS and the NTS can be found in Appendix B.

3.9.2 NEWSPAPER ADVERTISEMENTS

Notices regarding the proposed project and associated activities were circulated in two newspapers namely the 'Namibian' and the 'Informante' on the 11th and 18th of July 2019 (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 an interest with the project.

3.9.3 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.

3.9.4 CONSULTATION FEEDBACK

During the consultation phase, the stakeholders (affected parties) are given an opportunity to be a part of the mitigation measures of potential impacts or implementation of management measures of the project. Feedback detailing the identified stakeholders' interests and concerns were therefore considered and addressed in the EIA and will be submitted to the competent authority for decision-making processes.

There was one registered I&AP for the project from landowner of the Farm Tsuwandes (107) – the original comments received are provided in Appendix C. The key concerns were associated with various controls of the geological exploration activities on the farm. Furthermore, concerns regarding potential erosion, road damage, loss of vegetation and impacts to hydrogeological features were raised. The landowner also proactively provided suitable options for roads, infrastructure, camp locations, and fences that could be used by the exploration team.

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 Kunene 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

4.2.1 NO-GO ALTERNATIVE

Should exploration activities within EPL 7214 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 realised.

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 7214 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.

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 using a bulldozer if the area is bush-encroached or hilly. Vegetation clearance may be required for drill access tracks, drill pads and for a drillers' camp. 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 maybe used to identify rocks which have been hydrothermally altered. Remote sensing involves the use of aircraft or satellite-based equipment to obtain 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 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 detailed investigation and possible drilling.

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 a potential resource. Soil sampling and rock chip sampling are undertaken to define the location and possible extent of mineralization. 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 Votorantim Metals Namibia (Pty) Ltd 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 - Magnetotelluric (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.

The area to be cleared for drill site access and/or temporary campsites, shall not be more than 15ha, and therefore would not trigger the Forest Act, 2001 (Section 23). In addition, any established or large trees shall not be removed and access roads will be routed to avoid these wherever possible and permits will be obtained as necessary. Impacts and effects of geochemical surveys and drilling programmes are likely to be low (see Section 5.4 and the EMP).

4.3.1 EXPLORATION SCHEDULE

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 may be undertaken concurrently with geological mapping for approximately 2-6 months. Geophysical surveys may then be carried out over a period of about two (2) months after which the project will advance 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 and from and around the site. A drilling truck will be brought to site for core drilling, along with a water truck and supporting trucks 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

Approximately 16 workers will be employed during the exploration phase. Workers will mainly be sourced from Otavi and Outjo town. The 16 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 Outjo or Otavi and be transported to and from the site. Transport will be provided by the company. 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 including showers and portable toilets, during this period. Furthermore, the camping equipment shall include tents and a portable kitchen.

4.3.4 RESOURCE USE AND WASTE MANAGEMENT

Water will be required for various uses including human consumption during the planned exploration activities. It will most likely be sourced from an existing water source on site, after permission has been obtained from the farm owner. Alternatively, water will be trucked in or where many holes are to be drilled in an area a borehole will be drilled. In this case the required water borehole permits and abstraction permit shall be obtained from the Ministry of Agriculture Water and Forestry.

Waste produced on site will include sewerage and solid waste such as packaging. All solid waste shall be collected, taken off site and disposed of at the nearest approved waste management facility. Mobile toilets will 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 into the environment.

4.4 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 landowner and the MET. 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 PROJECT SITE LOCATION AND SURROUNDING ENVIRONMENT

EPL 7214 is located approximately 40 km west of Outjo and the C39 road runs just inside and nearly parallel with its southern boundary (FIGURE 3).

There are a few tourist attractions in the vicinity, mainly related to game viewing parks and lodges. The Bambatsi Holiday Ranch and Saturn Game and Guest farms are located to the west of the EPL. It is unlikely that prospecting activities will interfere with any of these tourist activities as they do not fall within the exploration area. The main, B1, goes from Windhoek to Otjiwarongo where it branches off NW to Outjo and the C39 heads off westwards from Outjo to the EPL. The licence area will mainly be accessed via the C39 district road. However, the northern portion may be reached more easily using a secondary road branching off the C40 to Otjikondo. The central section of the EPL is rugged and hilly and access may be difficult.

EPL 7214 covers nineteen (19) farms entirely or partially (FIGURE 4). Most farms have well-kept fences with access tracks on one side which can be used by exploration vehicles. The farmers' land use entails extensive livestock farming, commercial and private hunting and minor irrigated cultivation, as well as some tourist and conservation-oriented activities. Pro-active communication with the proponent and farmers will need to be maintained when planning to access their properties and to keep them updated on exploration activities.

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.

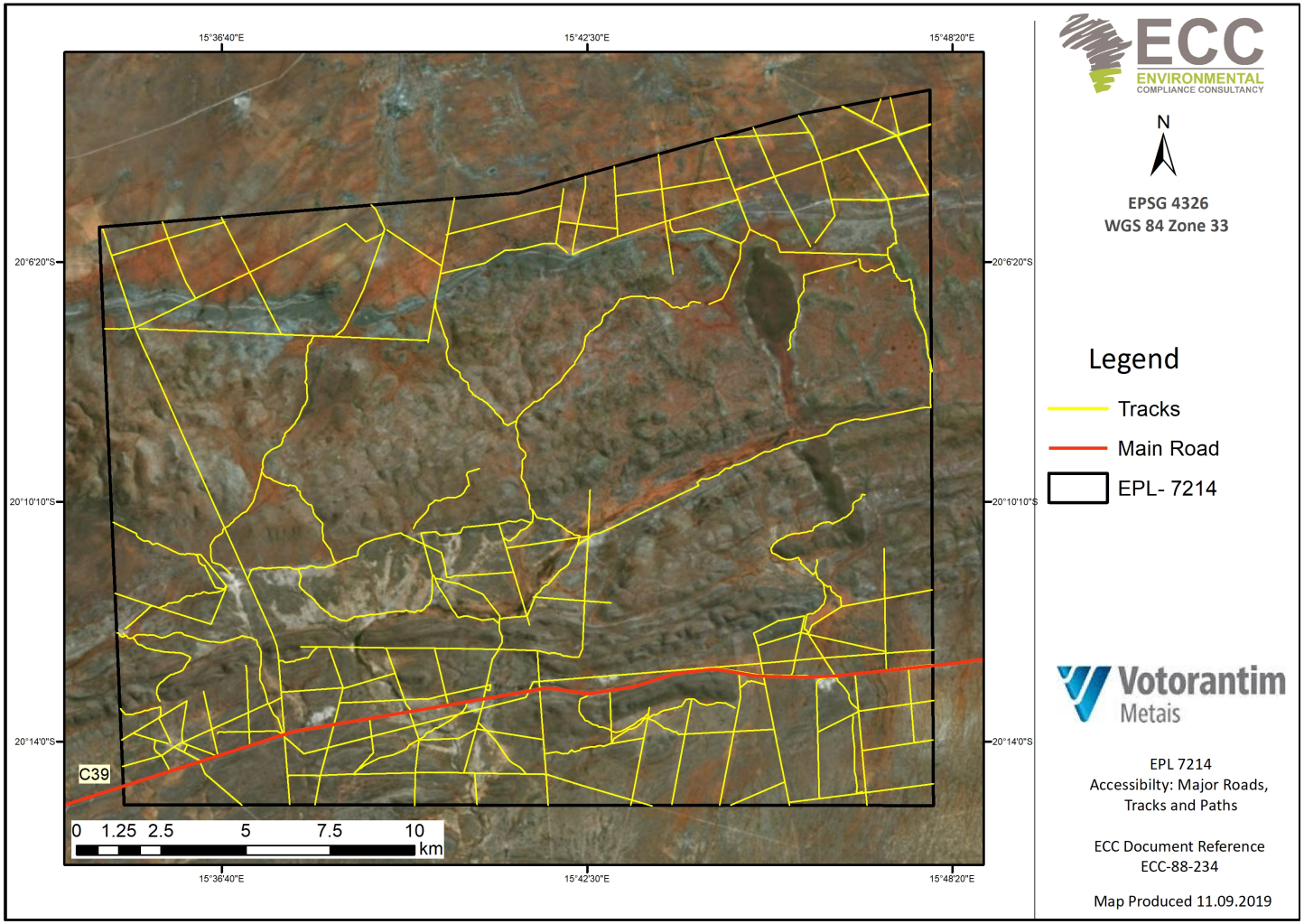

FIGURE 3 - ACCESSIBILITY MAP OF EPL 7214

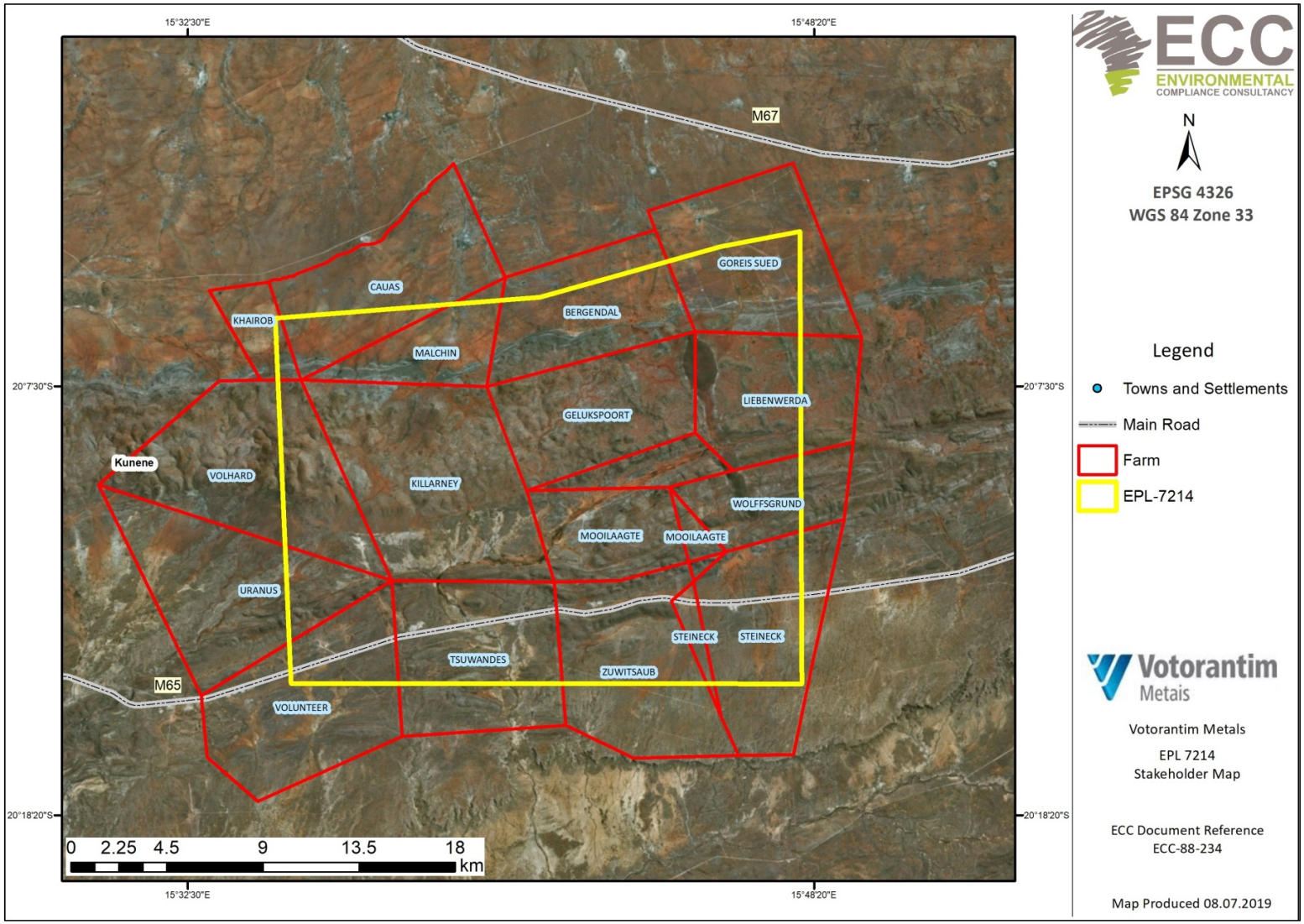

FIGURE 4 - LOCATION OF EPL 7214 RELATIVE TO NEIGHBOURING FARMS

5.3 CLIMATE

The average annual temperatures in the EPL area are 20°C - 22°C (Mendelsohn *et al*., 2003). Temperatures in the EPL area can reach a maximum of 32°C - 34°C. The average minimum temperature in the area ranges between 6°C and 8°C. The average rainfall of the area ranges between 300 mm to 350 mm per annum (Mendelsohn *et al*., 2003). Predominant wind direction is from north to east , with average wind speeds between 1 and 7 meters per second, while 21.4% of the year there is no wind (FIGURE 5) (Iowa State University, 2019) .

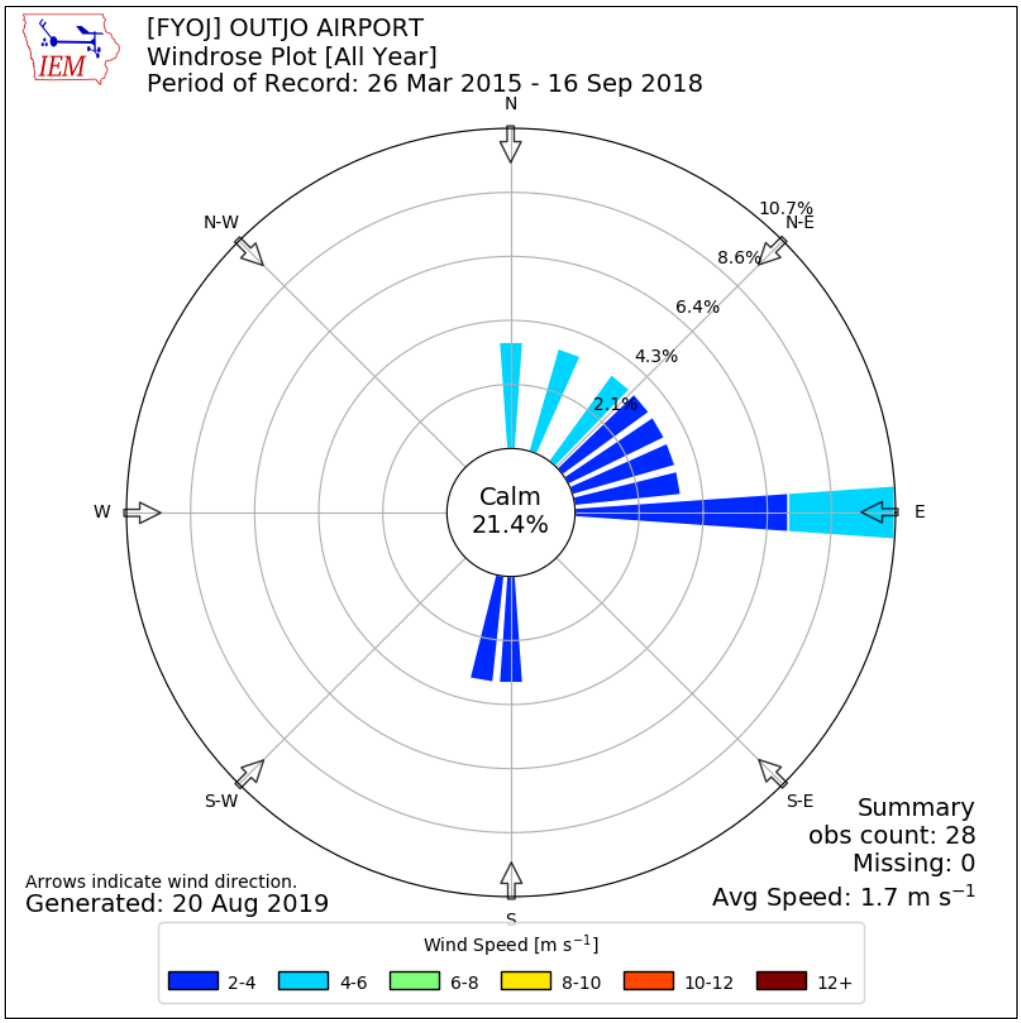

FIGURE 5 - WIND DIRECTION IN OUTJO

5.4 FAUNA AND FLORA

EPL 7214 is located within the trees and shrubs biome, with the vegetation types dominated by mopane and thorn bush woodland (Mendelsohn *et al.,* 2003). The vegetation structure in the proposed area includes sparse and dense shrubland and woodland types (FIGURE 6). There is a spatial and temporal vegetation distribution across the EPL, which is mainly driven by climatic, topographic and underlying bedrock. Large sensitive trees such as *Combretum imberbe, Colophospermum mopane* and *Ficus sycomorous* can be found in some of this areas.

The area supports a medium-high terrestrial diversity of animal and plant life, with the plant diversity in the area supporting approximately 300 – 399 species (Mendelsohn *et al*., 2003). A list of plant species in the area are presented in Appendix D.

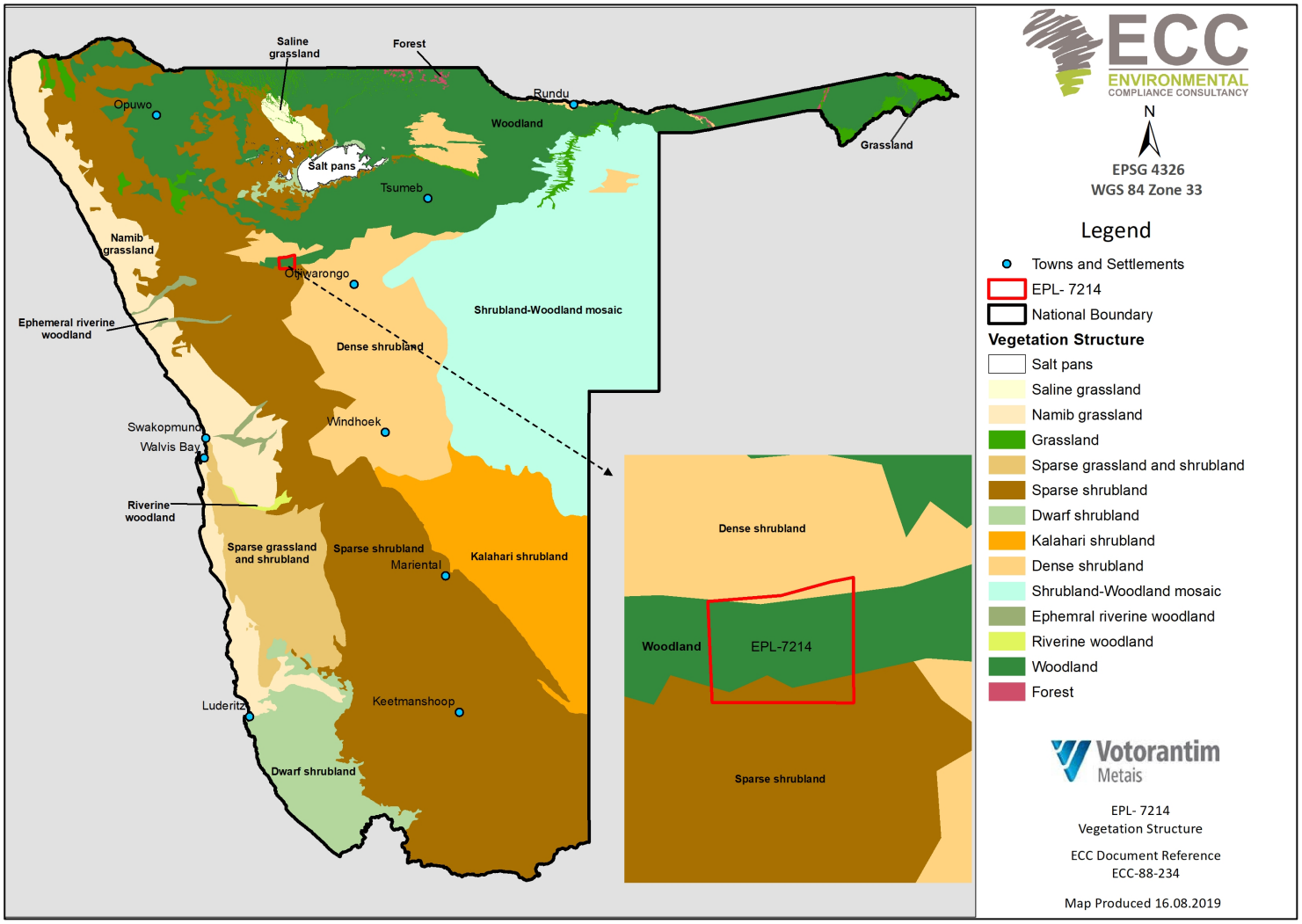

FIGURE 6 - REGIONAL AND LOCAL VEGETATION STRUCTURE

5.5 LANDSCAPE AND GEOLOGY

The local geology of EPL 7214 generally comprises units of the Epupa, Huab and Abbabis Metamorphic Complexes along the northern boundary, Otavi in the central section and Swakop Group along the southern boundary (FIGURE 7). The Otavi Group forms part of the Carbonate Platform of the Damara Orogen which comprises a thick sequence of late Proterozoic to early Phanerozoic (1000 to 541 Million) Otavi Group carbonates, argillaceous and siliciclastic rocks, deposited upon basement rocks (Trigon Metals, 2019).
The rocks in the EPL may host base metal sulphides such as copper, lead and silver mostly contained in the Neoproterozoic sedimentary units of the Damara Supergroup (Mendelsohn *et al*., 2003).

5.6 SOILS

The surface of EPL 7214 is covered by rock outcrops with eutric Regosols in the north and an east to west orientated sliver in the central section while the south is dominated by petric Calcisols (FIGURE **8**). A Regosol is very weakly developed mineral soilin unconsolidated materials. Regosols are extensive in eroding lands, in particular in arid and semi-arid areas and mountain regions. Regosols can be found on hard rocks where erosion has kept pace with soil formation or removed the top of the soil. Regosols are soils with a very shallow profile depth (indicating little influence of soil-forming processes), and they often contain large amounts of gravel. They are formed by erosion, desiccation, or waterlogging, depending on climate and topography. Calcisols are developed mostly in alluvial, colluvial and Aeolian deposits of base-rich weathering material. They are found on level to hilly land in arid and semi-arid regions.

The EPL is characterised by severe elevation differences (FIGURE 7 and FIGURE 8). A few areas on the EPL are covered by argillaceous and silty sediments. These are particularly prone to erosion, especially along vehicle tracks within these zones. These tracks become more eroded, if used by heavy machinery. Due to the very poor rain seasons, denudation in these areas is extreme, which will thus contribute to erosion when rains commence within the envisaged exploration time frame. The identified erosion control measures are as follows:

- Absolutely no bulldozing will be permitted in these areas
- Heavy vehicle traffic must be kept to an absolute minimum, and
- All tracks made by heavy vehicle traffic will immediately after drilling activities in that area are completed, be rehabilitated.

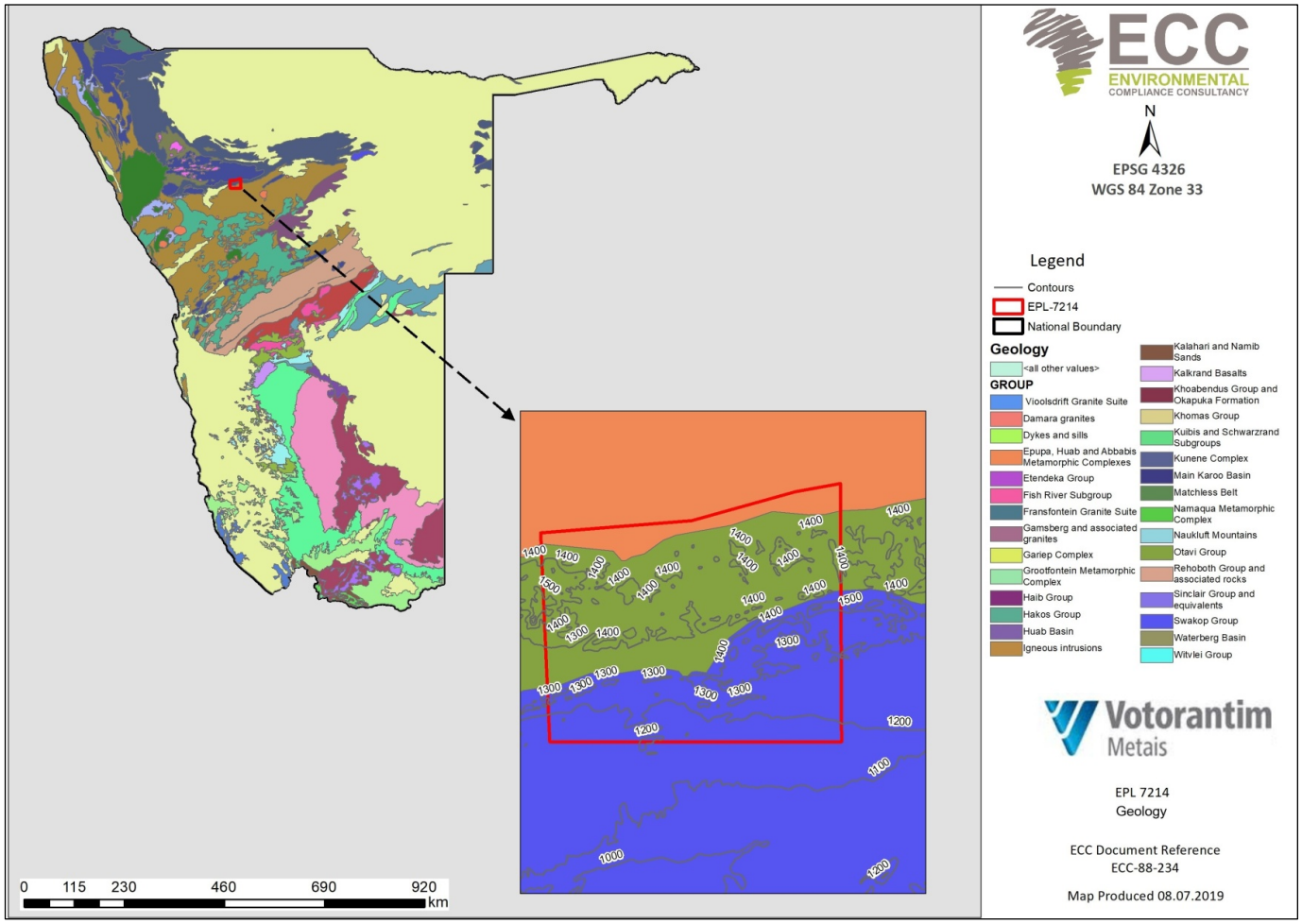

FIGURE 7 - EPL 7214 GEOLOGY

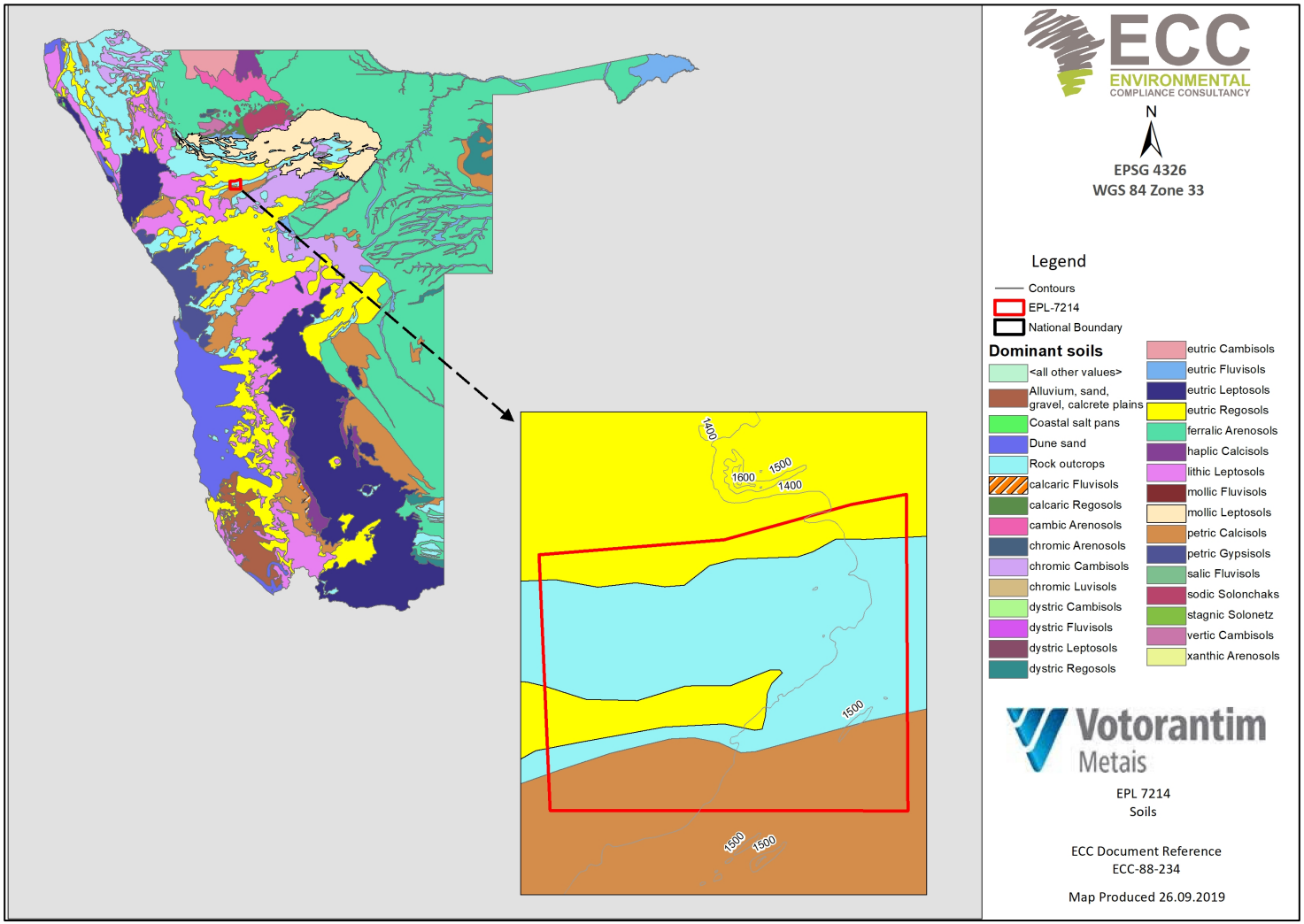

FIGURE 8 - DOMINANT SOILS AROUND EPL 7214

5.7 SURFACE AND GROUNDWATER

The EPL 7214 is located in the Ugab-Huab basin which has a predominantly productive fractured aquifer with some parts of the area being moderately productive but viable aquifer. The proposed project lies in a rocky and hilly area with the elevation profile (west - east) ranging between 1200 m -1500 m, the dendritic drainage patterns indicate this sloping characteristics (FIGURE 9).

Ground water is used predominantly for domestic purposes, subsistence farming, and small-scale and large-scale commercial farming. There are numerous boreholes scattered across the EPL (FIGURE 10). Given the nature and scale of the proposed exploration, drilling is unlikely to impact ground water. Additionally, the number and wide spread of the existing boreholes, could potentially be used to source water for the project, with permission from the relevant farm owner.

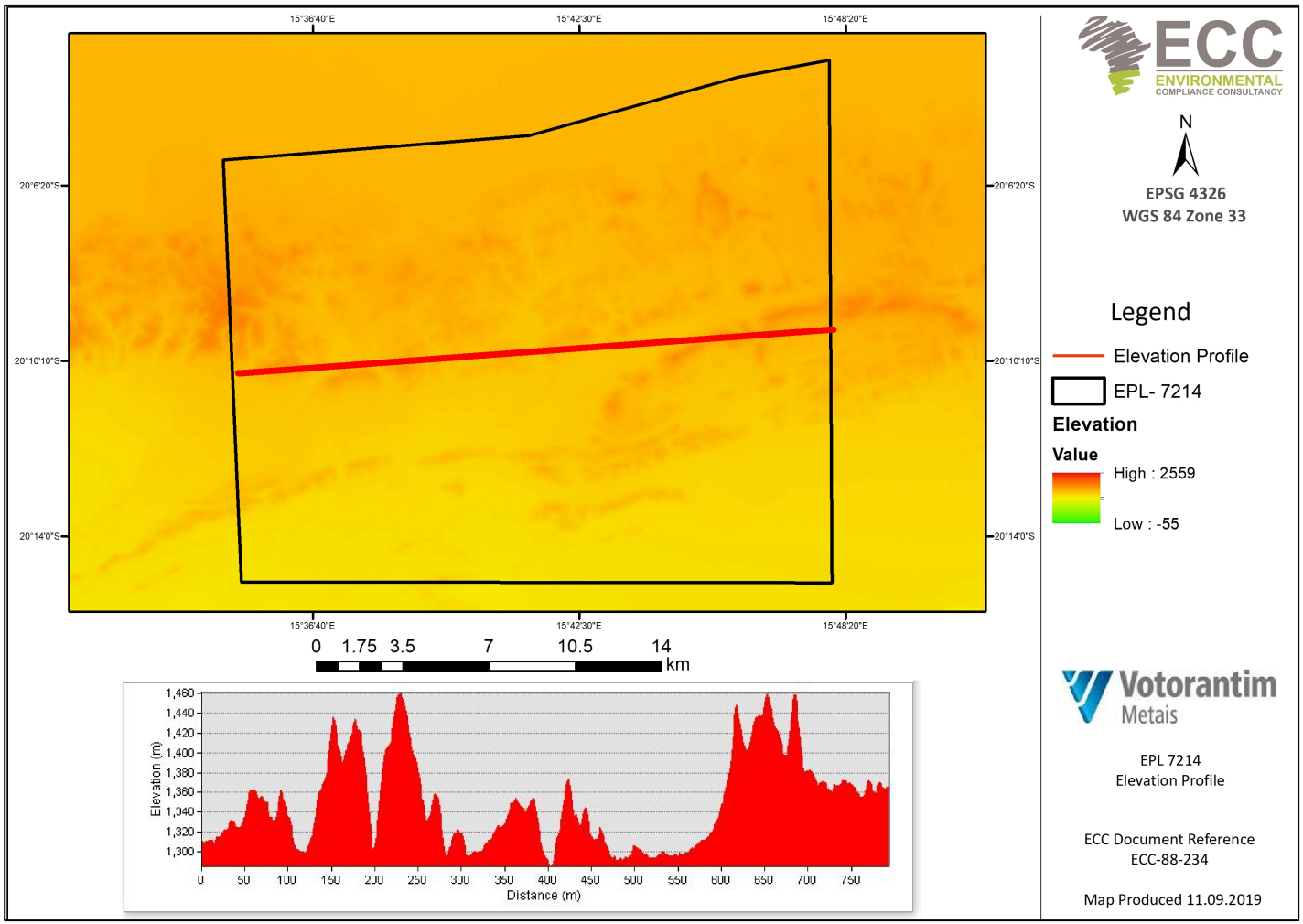

FIGURE 9 - ELEVATION PROFILE ALONG EPL 7214

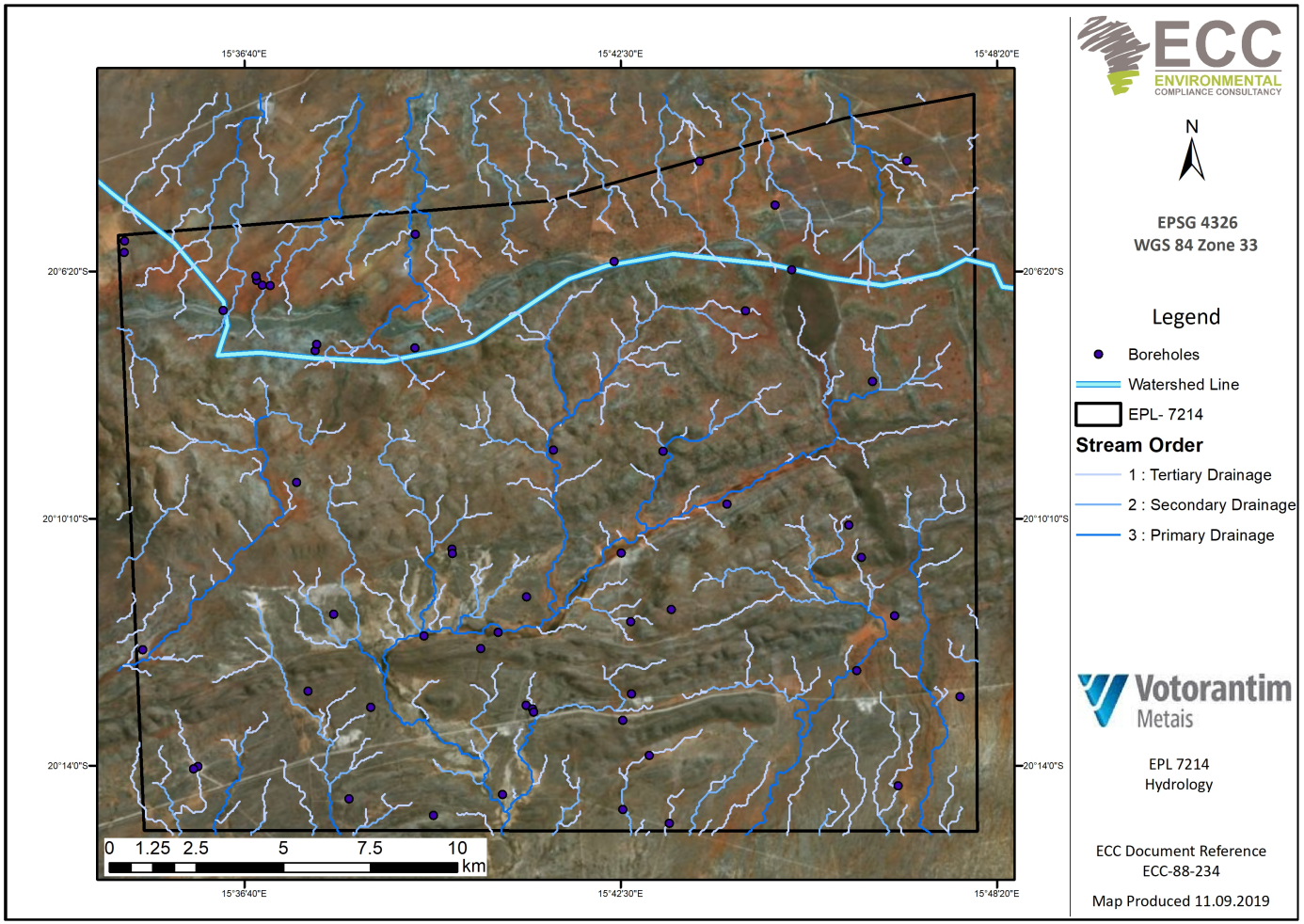

FIGURE 10 - HYDROLOGY OF EPL 7214

5.8 SOCIO-ECONOMIC

5.8.1 GOVERNANCE

Namibia was established in 1990 and is led by a democratically-elected and stable government. The country ranked top fifth out of 54 African countries in the Ibrahim Index of African Governance in 2015 for the indicators including the quality of governance and the government's ability to support human development, sustainable economic opportunity, rule of law and human rights (National Planning Commission, 2017).
As a result of sound governance and stable macroeconomic management, Namibia has experienced rapid socioeconomic development. Namibia has achieved the level of 'medium human development' and ranks 125th on the Human Development Index out of 188 countries (National Planning Commission, 2017).

5.8.2 DEMOGRAPHIC PROFILE

Namibia is one of the least densely populated countries in the world, with a population of 2.3 million people. Life expectancy is 65 years and average years of schooling is 11.7 (National Planning Commission, 2017).
Namibia's population is expected to increase from an estimated 2.11 million in 2011 to 3.44 million by 2041 (63%). In the 2011 Census, the population of the Otjozondjupa region was 143,903 (Namibia Statistics Agency, 2011).

5.8.3 HIV/AIDS IN NAMIBIA

HIV/AIDS is a critical public health issue in Namibia and is one of the leading causes of death. Namibia has a general HIV epidemic, meaning that there is a high HIV prevalence among the whole population. The epidemic is now starting to stabilise, after a rapid increase from the time that the first case of HIV was reported in 1986 peaking in 2002. HIV prevalence in Namibia is not yet measured through a population-based survey, instead, HIV prevalence among pregnant women attending Ante Natal Clinics is used. In 2010, 18.8% of pregnant women were HIV positive, a reduction from the high of 22% in 2002. However, HIV prevalence is unevenly distributed throughout the country, and this figure therefore not representative. The overall trend illustrates that HIV prevalence is stabilising rather than increasing (UNICEF, 2011).

5.8.4 EMPLOYMENT

Unemployment rates in Namibia, particularly amongst the youth are exceedingly high. According to the Namibia Labour Survey (2018), the unemployment rate of the country was 33.4% in 2018, with the Otjozondjupa Regions attaining to 36.1% respectively.
The labour force participation rate is the proportion of the economically active people in a given population group, which is calculated as the number of economically active people divided by the total population in the same population group. The labour force participation for the country was 71.2% (Namibia Labour Force Survey 2018).

5.8.5 ECONOMIC ACTIVITIES

The Namibian economy has grown on average by 4.6% per year between 2012 and 2016, however, slowed down in 2016 to 0.2% due to a reduction in productivity in the farming industry. Nearly 18% of the population lived in poverty in 2016, largely due to high unemployment, despite the increasing growth rate. A lack of industrialisation and infrastructure has contributed to Namibia's economic imbalance. The 5th Namibian NDP (National Planning Commission (2017) states that modernization and industrialization of the major sectors

(agriculture, fisheries, manufacturing, mining and tourism), and the provision of trading opportunities will enable workers to upgrade their skills. Namibia will create jobs in a diverse range of industries which will improve the economy.

The mining and quarrying sector is the largest sectoral income which contributed an overall 11.3 percent to GDP and 64.2 percent to gross primary industry contribution to GDP, which is then followed by the tourism, fishing and manufacturing sectors (National Planning Commission, 2018).

5.8.6 Cultural Heritage

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

5.8.7 Noise and Vibrations

EPL 7214 is located approximately 40 km east of Outjo and borders up to nineteen (19) farms. It is likely that noise in the area could affect these sensitive receptors of the area. It is therefore advised that good communications are maintained during exploration activities and prospecting of the site.

6 ENVIRONMENTAL ASSESSMENT FINDINGS AND MITIGATION

6.1 SCOPING ASSESSMENT FINDINGS

This is to ensure the likely significant effects and any necessary additional mitigation measures were identified. The following topics were considered during the scoping phase:

- Surface water and groundwater (including geomorphology)
- Soils and geology
- Landscape (visual impacts, change in landscape, and sense of place)
- Socio-economics (employment, local businesses, community, demographics & tourism, land use)
- Noise
- Ecology (fauna & flora)
- Human environment (infrastructural services, traffic and transport)
- Air quality (including dust), and
- Cultural heritage and palaeontology resources.

The source-pathway-receptor model was used to evaluate the potential impacts of the proposed project and determine if further assessment is required. These include:

- Source of potential impact - where does the impact come from, e.g. the activity, ground excavation, which emits dust;
- The potential pathway – how can the pollution / impact travel through the environment e.g. wind direction and speed; and
- The receptor and effect – what can be affected and how e.g. water body, sedimentation, water quality affected.

TABLE 12 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, namely residents in farm houses. Further consideration of the potential effects on humans was therefore undertaken and results are presented in the next section.

6.2 LIMITATIONS AND UNCERTAINTIES

Some limitations and uncertainties were acknowledged during the EIA process, which are summarised in TABLE 11, 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 11 - LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS

LIMITATION / UNCERTAINTY	ASSUMPTION
Water source is unconfirmed	Water will be acquired from existing sources on site (sites yet to be defined – Refer Fig 10). If this is not possible, a borehole will be drilled, and the required permit shall be obtained from MAWF.
Number of access roads and temporary drill campsites.	The number and length of access roads required to reach drill sites is unknown at this point. 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 as it may be required for equipment to reach the site and for temporary campsites. Once other stages of the prospecting programme are complete this information will be available.

TABLE 12 - SCOPING ASSESSMENT FINDINGS

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF POTENTIAL IMPACT/S	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
Groundwater and Soil	- Fuel handling and storage, lubrication of equipment - Drilling and the use of equipment can cause reduction to soil quality	- Spillage may lead to soil and groundwater contamination - Drilling can cause reduction in soil quality (through soil contamination) - Soil erosion can be caused through vegetation clearance and possible creation of tracks.	- Direct - On-site - Short-term - Temporary /reversible - Likely	Medium	Moderate	**Moderate (6)**	**Safe delivery and handling:** - Training employees and toolbox talks - Good housekeeping across the site - Spill kits to be placed at designated areas across the site, - Absorption material should be available and at hand. Where saw dust is used, it should be cleaned up immediately and not left for long periods as this poses a fire hazard - Any major spill is reported to the project manager and Ministry of Mines and Energy - Equipment to be well maintained and serviced regularly - The use of hydrocarbons under 200 litres can be used for mobile refuelling or servicing - Extraction volumes of water shall be minimal during exploration and where possible, water from existing water	**Low (2)**

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF POTENTIAL IMPACT/S	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							sources shall be used **Storage:** All tanks to be stored on a non-porous floor and bunded area - Bund need to be capable of storing at least 110% of the volume of the tank - All containers should to be suitable for use and not damaged - Topsoil should be separately stockpiled to be re-spread when backfilling, and - Equipment must be in good condition to ensure that the oil spills do not contaminate the site **Refuelling:** - Drip tray to be used during refueling of vehicles - A funnel or similar should be available and used to avoid spillage during decanting - Equipment must be in good condition to ensure that the oil spills do not contaminate the site	

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF POTENTIAL IMPACT/S	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
Terrestrial Ecology and biodiversity	- Exploration activities in sensitive environments - Vegetation clearing, and - Equipment and vehicle movements	- Possible injury or death of animals - Poaching - Habitat fragmentation from clearing - Habitat loss	- Direct - Local - Short-term - Temporary /reversible - Certain	Medium	Low	**Minor (2)**	- Soil quality is relatively good in the area and where areas are cleared should be separately stockpiled for re-spreading when rehabilitating - Use existing tracks where possible - Route new tracks around established and protected trees, and clumps of vegetation - Identify rare, endangered, threatened and protected species and demarcate them and avoid removing them - All workers on-site are to be notified to avoid any excluded areas or species - Progressive rehabilitation during the exploration phase should be applied - No camping within river beds - Avoid setting exploration sites and camps on visible game tracks because they are used as movement routes to access grazing and water resources - Natural drainage patterns should be restored if disturbed	**Low (2)**

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF POTENTIAL IMPACT/S	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							- Relocation of protected plant species if disturbance cannot be avoided.	
Community	Dust creation due to drilling activities	- Impacts of public health and visibility, and - Impact on fauna and flora	- Direct - Local - Temporary - Reversible - Likely	Low	Minor	**Minor (3)**	- Avoid off-road driving - Selected drilling method to prevent dust	**Low (2)**
Community and environment	Noise generation through the use of airborne equipment – Drilling operations, – Vehicle movements	- Short-term increase in noise levels heard by farmers (disruption)	- Direct - Local - Temporary - Reversible - Likely	Low	Negligible	**Low (2)**	– Correspond with wildlife authorities and ensure minimal noise pollution especially after sunset or before sunrise. – If aerial equipment is to be used ensure permits are obtained from MET prior to use. – A detailed assessment is not required, however, due to the uncertainty surrounding the risk of affecting sensitive receptors due to the increase in noise levels, further investigation was deemed necessary.	**Low (1)**

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF POTENTIAL IMPACT/S	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
Stakeholders / Tourists	Visual impact from drill rigs, equipment	- Eyesore due to poor housekeeping - Change in landscape - Obscuring views	- Direct - Local - Short-term - Reversible - Certain	Low	Minor	**Minor (3)**	– Avoid setting up exploration sites on tourists' routes – If it can't be avoided, ensure the site is minimal, clean and maintain to exceptional housekeeping standards.	**Minor (3)**
Topography and landscape	Creation of new tracks and roads – Presence of equipment and possibly campsites	- Environmental disturbance - Loss of flora and fauna - Disturbance of migratory animals in the area - Changes to views (people's perception), and - Changes to the local landscape	- Direct - Local - Short-term - Reversible - Likely	Medium	Moderate	**Moderate (6)**	– Make use of existing tracks if available – When developing a new track from an existing road ensure the junction is discreet but is also safe – Avoid creating new access tracks on visible game tracks – Monitor the condition of the track before, during, and after use – Do not needlessly remove vegetation from either side of the road – Rehabilitate tracks after use. – Short-term duration for the presence of equipment, which shall move frequently and shall not result in long-term effects,	**Low (2)**

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF POTENTIAL IMPACT/S	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							and – With the mitigation and management measures listed in the EMP, these effects would be minimised and no likely significant affect anticipated.	
Heritage	Exploration can encounter and if not managed destroy heritage remains Direct and indirect impacts to cultural resources	Impact on view shed /landscape surrounding heritage features	- Direct - On site - Long-term - Irreversible - Unlikely	High	Major	Major (12)	If discovery of unearthed archaeological remains is to be uncovered, the following measures (chance find procedure) shall be applied: – Works to cease, area to be demarcated with appropriate tape by the site supervisor, and the Site Manger to be informed – Site Manager to visit the site and determine whether work can proceed without damage to findings, mark exclusions boundary – If work cannot proceed without damage to findings, Site Manager is to inform the Environmental Manager who will get in touch with an archaeologist for advice – Archaeological specialist is to	**Minor (4)**

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF POTENTIAL IMPACT/S	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							evaluate the significance of the remains and identify appropriate action, for example, record and remove; relocate or leave in situ (depending on the nature and value of the remains) – Inform the police if the remains are human, and – 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 appropriate.	
Social Economic	Job creation due to exploration activities	– Employment creation and skills development – Opportunities during the exploration phase (Approx. 10-20 jobs)	- Direct - Regional - Long-term - Reversible - Certain	Medium	Minor	**Minor (4)**	– Maximise local employment and local business opportunities to promote and improve the local economy – Enhance the use of local labour and local skills as far as reasonably possible. Where the required skills do not occur locally, and where appropriate and applicable, ensure that relevant local individuals are trained, and – Ensure that goods and services are sourced from the local and	**Low major beneficial**

RECEPTOR	DESCRIPTION OF ACTIVITY	DESCRIPTION OF POTENTIAL IMPACT/S	EFFECT/DESCRIPTION OF MAGNITUDE	VALUE OF SENSITIVITY	MAGNITUDE OF CHANGE	SIGNIFICANCE OF IMPACT	IMPACT MANAGEMENT/CONTROL MEASURES	RESIDUAL IMPACT AFTER MITIGATION
							regional economy as far as reasonably possible.	
Environment	Generation of waste due to exploration activities	Nuisances (odours and visual), and Litter (nuisance and ecological risk)	- Direct - On-site - Short-term - Reversible - Likely	Moderate	Low	**Minor (3)**	– Training and toolbox talk to workers shall be provided – Ensure good housekeeping – Implement the waste management hierarchy across the site: avoid, reuse, and recycle – Waste shall be collected and shall be removed from site. – It is unlikely that hazardous material and waste will be produced, however in the event that they are, they shall be managed in a safe and responsible manner so as to prevent contamination of soils, pollution of water and/or harm to people or animals as a result of the use of these materials. – Hazardous and non-hazardous waste shall be stored separately and ensure compliance with the Radiation Protection & Waste Disposal Regulations (No 221 of 2011) at all times.	**Low (2)**

6.2.1 Further Consideration: Noise impacts

Due to the rural nature of the EPL site and the lack of noisy activities in the area, the average noise levels across the EPL is most likely below the South African National Standards (SANS) 10103 for rural districts (45dBA).

Drilling operations have the potential to increase the noise levels which could affect sensitive receptors. This nuisance noise could affect the lifestyle and daily tasks of residents and livestock and could also cause health issues, such as sleeping problems if conducted at inappropriate times of day.

Due to the rural lifestyle of the residents in the project area and given that the receptors are used to a quiet environment, the potential impact is therefore considered as medium sensitivity due to a potential increase in noise levels from drilling operations. Drilling operations have the potential to increase the baseline noise level, however, this change would be temporary and for a short-term. Through the application of the EIA methodology it was concluded that without additional mitigation the significance of effect is expected to be low. With additional mitigation, the effects on human receptors from noise impacts would be reduced to minor significance (TABLE 13). No additional studies are considered necessary to further assess this risk of impact.

TABLE 13 - SUMMARY OF EFFECTS

Activity	Receptor	Impact	Nature of impact	Value & Sensitivity	Magnitude of change	Significance of impact
Drilling	– Humans	Nuisance Health Impact	Short term Temporary Local / on-site Direct Adverse Likely	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:

- No drilling when it is dark
- 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 (e.g. ear-muffs to be worn by driller's staff) 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
- Continual engagement with residents shall be undertaken by the proponent.

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.

7 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.

8 CONCLUSIONS

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 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. 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 effects and environmental disturbances are avoided.

On this basis, it is 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.

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APPENDIX A - EMP

APPENDIX B - NON-TECHNICAL SUMMARY

ECC-88-234-NTS-09-A

NON-TECHNICAL SUMMARY

EXPLORATION ACTIVITIES ON EPLs 7213, 7214 & 7342

FOR BASE AND RARE METALS, INDUSTRIAL MINERALS AND PRECIOUS METALS

PREPARED FOR

VOTORANTIM METALS NAMIBIA (PTY) LTD

JULY 2019

PO BOX 91193 Windhoek Namibia
Environmental Compliance Consultancy CC

NON-TECHNICAL SUMMARY

PROPOSED EXPLORATION ACTIVITIES ON EPLS 7213, 7214 & 7342 FOR BASE AND RARE METALS, INDUSTRIAL MINERALS, AND PRECIOUS METALS

1 PURPOSE OF THIS DOCUMENT

The purpose of this Non-Technical Summary (NTS) is to provide Interested and Affected Parties (I&APs) a background to the proposed project and to invite I&APs to register as part of the Environmental Impact Assessment (EIA) process. The project involves exploration activities on EPL 7213, EPL 7214 and EPL 7342 for Base and Rare Metals, Industrial Minerals and Precious Metals. Through registering, all I&APs will be kept informed throughout the EIA process, and a platform for participation will be provided to submit comments/recommendations pertaining to the project.

This NTS includes the following information on:

- The proposed project and location
- The necessity of the project, benefits or adverse impacts anticipated
- The alternatives to the project have been considered and assessed
- How the EIA process works
- The public participation process and how to become involved, and
- Next steps and the way forward.

2 DESCRIPTION OF PROPOSED PROJECT

2.1 Brief Introduction

Environmental Compliance Consultancy (ECC) has been engaged by the proponent (Votorantim Metals Namibia (Pty) Ltd) to undertake an Environmental Impact Assessment (EIA) and an Environmental Management Plan (EMP) in terms of the Environmental Management Act, 2007 and its Regulations. An environmental clearance application will be submitted to the relevant competent authorities; the Ministry of Mines and Energy (MME) and Ministry of Environment and Tourism (MET).

2.2 Location

The project is located in the Kunene and Otjozondjupa Regions. Refer to the location map provided in FIGURE 1.

2.3 What is Proposed

Nexa Resources is an invested company of the Votorantim portfolio; the company is listed on the New York Stock Exchange in the United States and the Toronto Stock Exchange in Canada.

Votorantim undertakes mineral exploration in Namibia and propose to undertake low impact exploration activities on EPL 7213, EPL 7214 and EPL 7342 for Base and Rare Metals, Industrial Minerals and Precious Metals in the Kunene and Otjozondjupa Regions.

2.4 Operation Phase

The proposed exploration activities are low-impact and non-intrusive. The following are envisaged during the proposed project:

- Potential creation of access tracks, where existing tracks cannot be utilised
- Limited vegetation clearing for the creation of tracks
- Drilling of exploration boreholes, and
- Exploration methods may include soil and rock sampling, geological mapping, electromagnetic surveys, drilling and drill-core sampling.

2.5 Why is the Project Needed

Votorantim Metals intends to pursue exploration opportunities with the aim of identifying new mining prospects. Namibia is rich with natural resources and the minerals sector is a key contributor to the nations GDP in Namibia. Exploration could lead to mining activities which would contribute to the national and local economy.

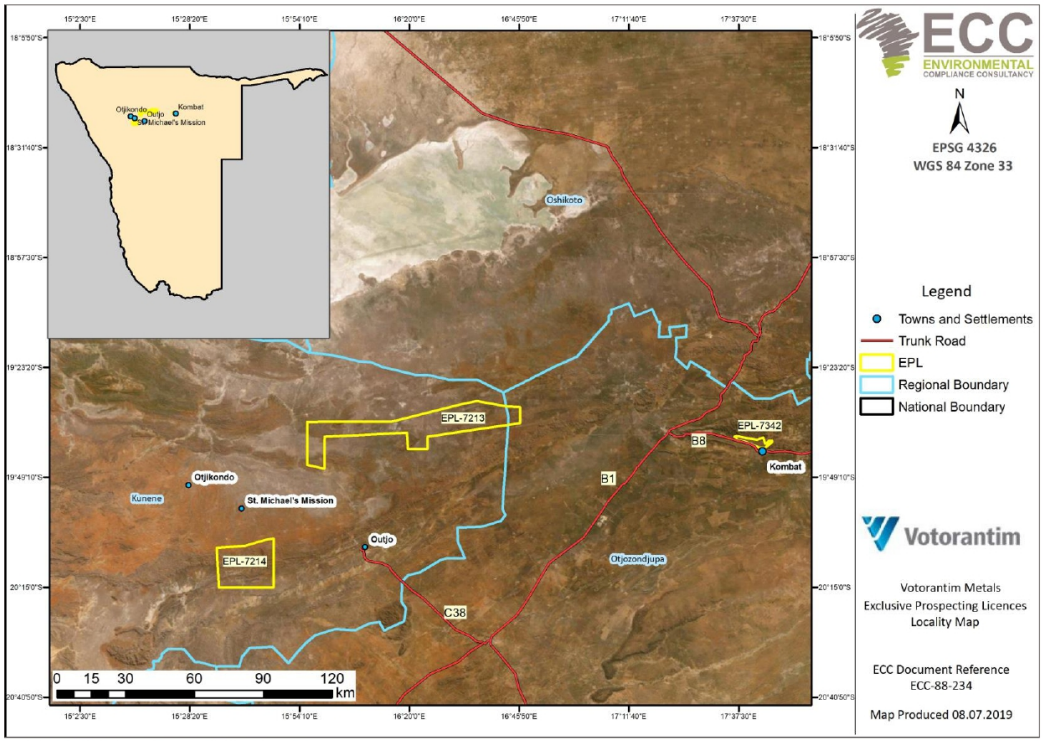

FIGURE 1 – LOCATION MAP OF THE PROPOSED PROJECT

2.6 Potential Impacts of the Project

2.6.1 Socio-economic

The potential social impacts are anticipated to be of low significance, and those that may transpire shall be confined within the EPL site, these potential impacts may include the following:

- Potential to unearth, damage or destroy undiscovered heritage remains
- Minor disruption to the residents of the farms within the EPL, including some increase in noise levels and dust arising from drilling and vehicle use
- Some jobs will be created as a result of the project; and
- There will be economic benefits due to increased investment and investor confidence in the Namibian minerals sector.

2.6.2 Environmental

The potential environmental impacts are anticipated to be of minor significance, and those that may occur shall be contained within the EPL site, these potential impacts may include the following:

- Some potential vegetation loss due to possible tracks creation;
- Potential use of resources, including surface and groundwater; and
- Minor risk of loss of contaminant of hydrocarbon, chemical or drill fluids from exploration activities potentially leading to localised ground contamination.

3 CONSIDERATION OF ALTERNATIVES

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

In a project such as this one, it is difficult to identify alternatives to satisfy the need of the proposed project; the activities shall be specific to the EPL 7213, EPL 7214 and EPL 7342, which were granted by the MME on the 20th of March and 8th of May 2019.

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

4 THE ENVIRONMENTAL ASSESSMENT PROCESS

This EIA, conducted by ECC, is undertaken in terms of the Environmental Management Act, 2007 and its regulations.

The process followed in this EIA is set out in the flowchart in

FIGURE 2 below.

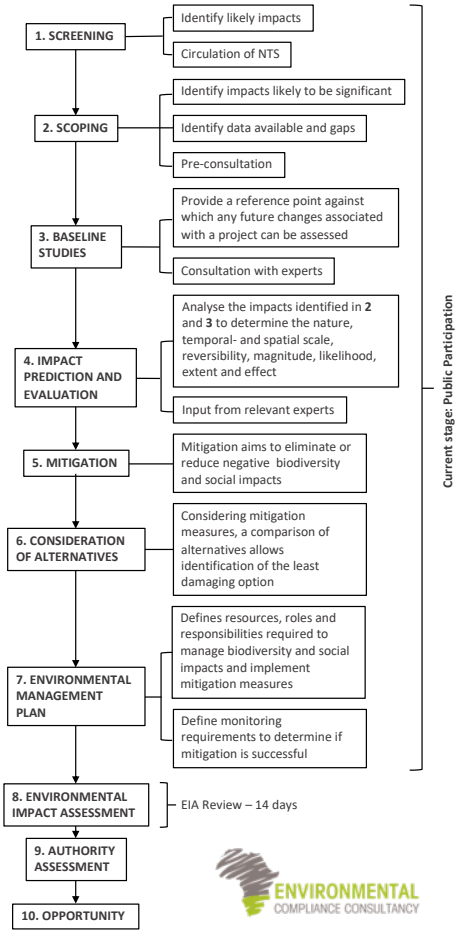

FIGURE 2 - FLOWCHART OF THE ENVIRONMENTAL ASSESSMENT PROCESS

4.1 SCREENING

A review of the proposed project screening findings against the listed activities was conducted; the findings of which are summarised below.

MINING AND QUARRYING ACTIVITIES

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

- The proposed project requires a licence for extraction of metals and industrial minerals

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

- Minerals (soil and sand), metals will be sourced out within the project's footprint/ locally as far as possible

(3.3) Resource extraction, manipulation, conservation and related activities

- The proposed project will extract Base and Rare Metals, Industrial Minerals and Precious Metals

WATER RESOURCE DEVELOPMENT

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

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

(8.5) Construction of dams, reservoirs, levees and weirs

- The proposed project is required to drill exploration boreholes within the project footprint

INFRASTRUCTURE

10.1 The construction of

(b) Public roads

- With this proposed project there is a potential creation of access tracks where existing tracks cannot be utilised

The potential environmental and social effects are anticipated to be of minor significance, and those that may occur shall be contained on the EPL 7213, EPL 7214 and EPL 7342 sites.

4.2 SCOPING

Due to the nature of the proposed project, and the implementation of industry best practice mitigation measures during the mineral exploration phase of the project, the effects on the environment and society are expected to be minimal and localised.

4.3 BASELINE STUDIES

For the proposed project, baseline information was obtained through a desk-based study and site verification processes through focusing on the environmental receptors that could be affected by the proposed project. ECC will also engage with stakeholders, I&APs and the proponents to seek input into the assessment.

4.4 IMPACT ASSESSMENT

Impacts will be assessed using the ECC EIA methodology. The EIA will be conducted in terms of the Environmental Management Act, 2007 and its regulations. ECCs methodology for impact assessments was developed using IFC standards in particular Performance Standard 1 'Assessment and management of environmental and social risks and impacts' (International Finance Corporation, 2017), (International Finance Corporation, 2012) and Namibian Draft Procedures and Guidance for EIA and EMP (Republic of Namibia, 2008) including international and national best practice with over 25 years of combined EIA experience.

4.5 ENVIRONMENTAL MANAGEMENT PLAN

An EMP shall be developed for the proposed project setting out auditable management actions for Votorantim Metals Namibia (Pty) Ltd to ensure careful and sustainable management measures are implemented for their activities in respect of the surrounding environment and community.

4.6 PUBLIC PARTICIPATION AND ADVERTISING

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

At this phase ECC will perform the following:

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

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

CONTACT US

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

Environmental Compliance Consultancy (ECC)

info@eccenvironmental.com

Tel: +264 816 697 608

www.eccenvironmental.com

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APPENDIX C - EVIDENCE OF PUBLIC CONSULTATION

ENVIRONMENTAL COMPLIANCE CONSULTANCY
CC/2013/11404

LIST OF REGISTERED ITEMS POSTED

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11	TO: GELUKSPOORT GUEST FARM REM. OF GELUKSPOORT FARM P.O. BOX 158, OUTJO	RR 012180622 NA
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13	TO: G. ARNOLD FARM PTN 1 OF MOOILAAGTE P.O. BOX 128, OUTJO	RR 012180640 NA

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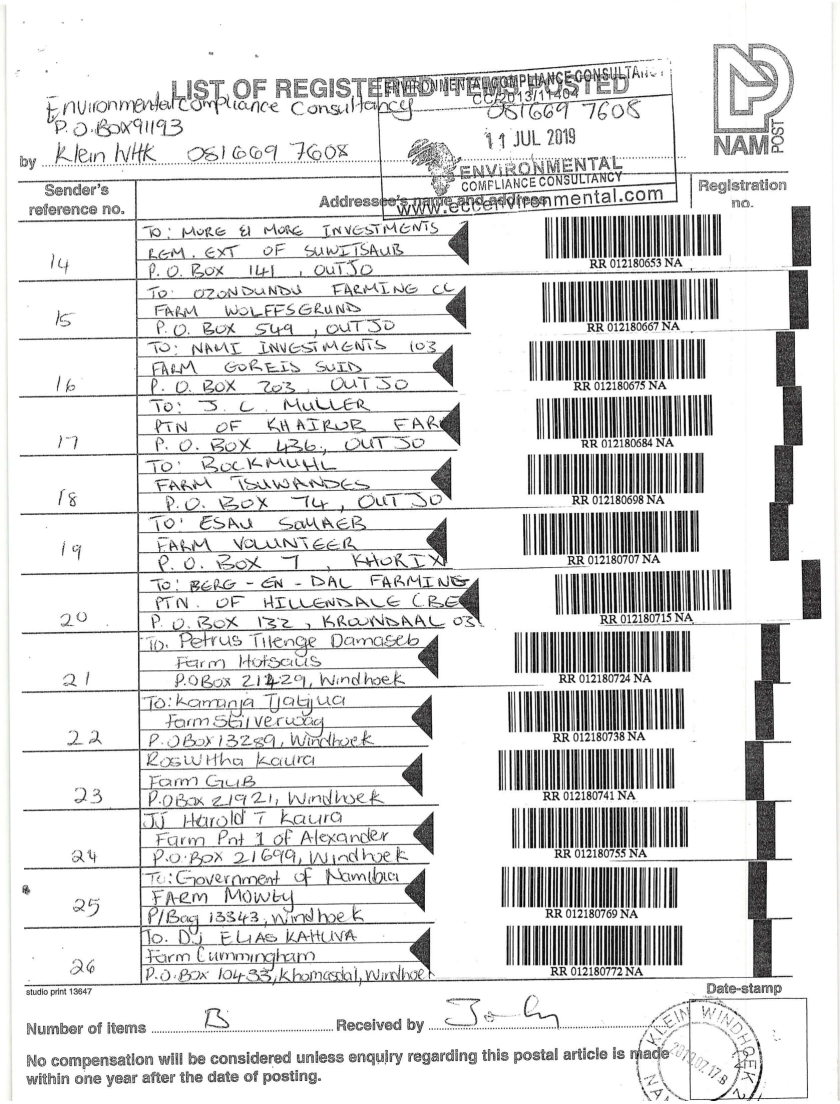

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16	TO: NAMI INVESTMENTS 103 FARM GOREIS SUID P.O. BOX 703, OUTJO	RR 012180675 NA
17	TO: J. C. MULLER PTN OF KHAIRUB FAR P.O. BOX 436, OUTJO	RR 012180684 NA
18	TO: BOCKMUHL FARM TSUWANDES P.O. BOX 74, OUTJO	RR 012180698 NA
19	TO: ESAU SAHAEB FARM VOLUNTEER P.O. BOX 7, KHORIXAS	RR 012180707 NA
20	TO: BERG - EN - DAL FARMING PTN. OF HILLENDALE (BE P.O. BOX 132, KROONDAAL 03	RR 012180715 NA
21	TO: Petrus Tilenge Damaseb Farm Hotsaus P.O Box 21429, Windhoek	RR 012180724 NA
22	TO: Kamanja Tjatjua Farm Steiverwag P.O Box 13289, Windhoek	RR 012180738 NA
23	Roswitha kaura Farm Guib P.O Box 21921, Windhoek	RR 012180741 NA
24	JJ Harold T kaura Farm Pnt 1 of Alexander P.O Box 21699, Windhoek	RR 012180755 NA
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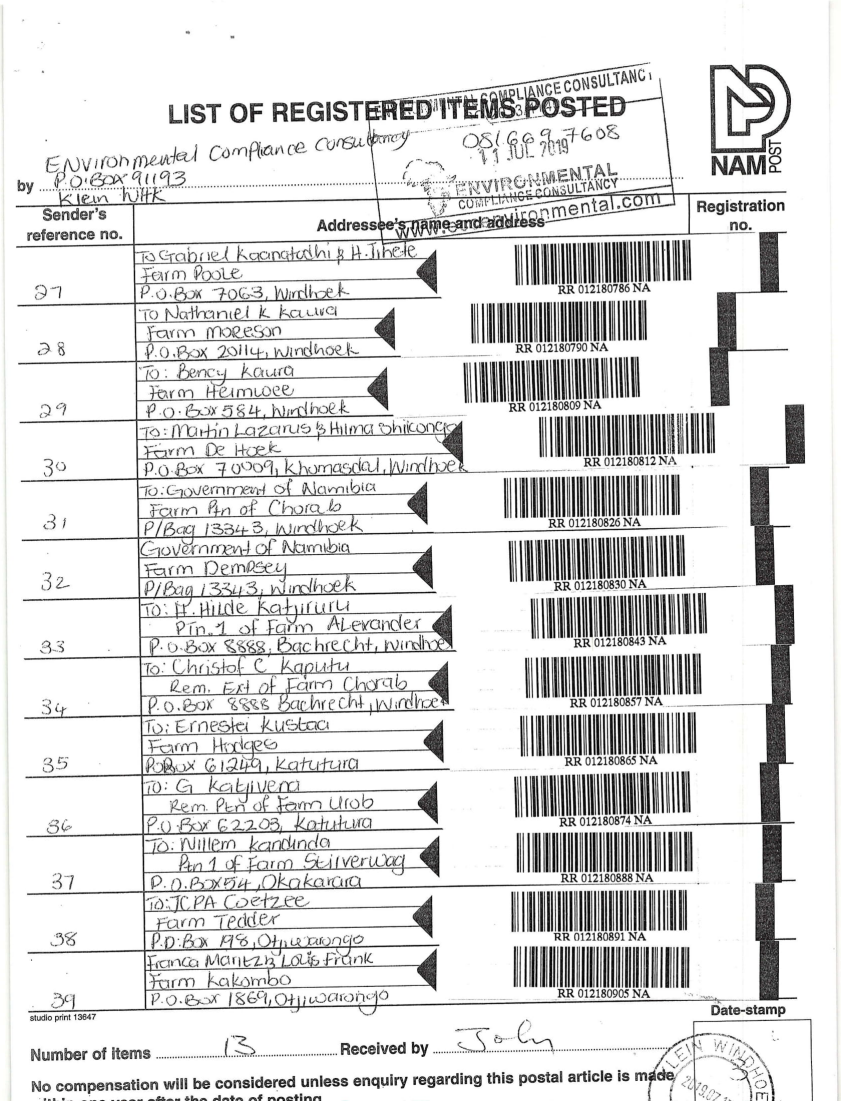

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27	To Gabriel Kaonatathi & H. Tjhele Farm Poole P.O.Box 7063, Windhoek	RR 012180786 NA
28	To Nathaniel k kaura Farm Moreson P.O.Box 20114, Windhoek	RR 012180790 NA
29	To: Bency kaura Farm Heimwee P.O.Box 584, Windhoek	RR 012180809 NA
30	To: Martin Lazarus & Hilma Shikongo Farm De Hoek P.O.Box 70009, Khomasdal, Windhoek	RR 012180812 NA
31	To: Government of Namibia Farm Ptn of Chorab P/Bag 13343, Windhoek	RR 012180826 NA
32	Government of Namibia Farm Dempsey P/Bag 13343, Windhoek	RR 012180830 NA
33	To: H. Hilde Katjiuuru Ptn. 1 of Farm Alexander P.O.Box 8888, Bachrecht, Windhoek	RR 012180843 NA
34	To: Christof C. Kaputu Rem. Ext of Farm Chorab P.O.Box 8888 Bachrecht, Windhoek	RR 012180857 NA
35	To: Ernestei kustaa Farm Hodges PoBox 61249, Katutura	RR 012180865 NA
36	To: G. katjivena Rem Ptn of Farm Urob P.O.Box 62203, Katutura	RR 012180874 NA
37	To: Willem kandinda Ptn 1 of Farm Steiverwag P.O.Box 54, Okakarara	RR 012180888 NA
38	To: J.C.P.A Coetzee Farm Tedder P.O.Box 198, Otjiwarongo	RR 012180891 NA
39	Franca Maritz & Louis Frank Farm Kakombo P.O.Box 1869, Otjiwarongo	RR 012180905 NA

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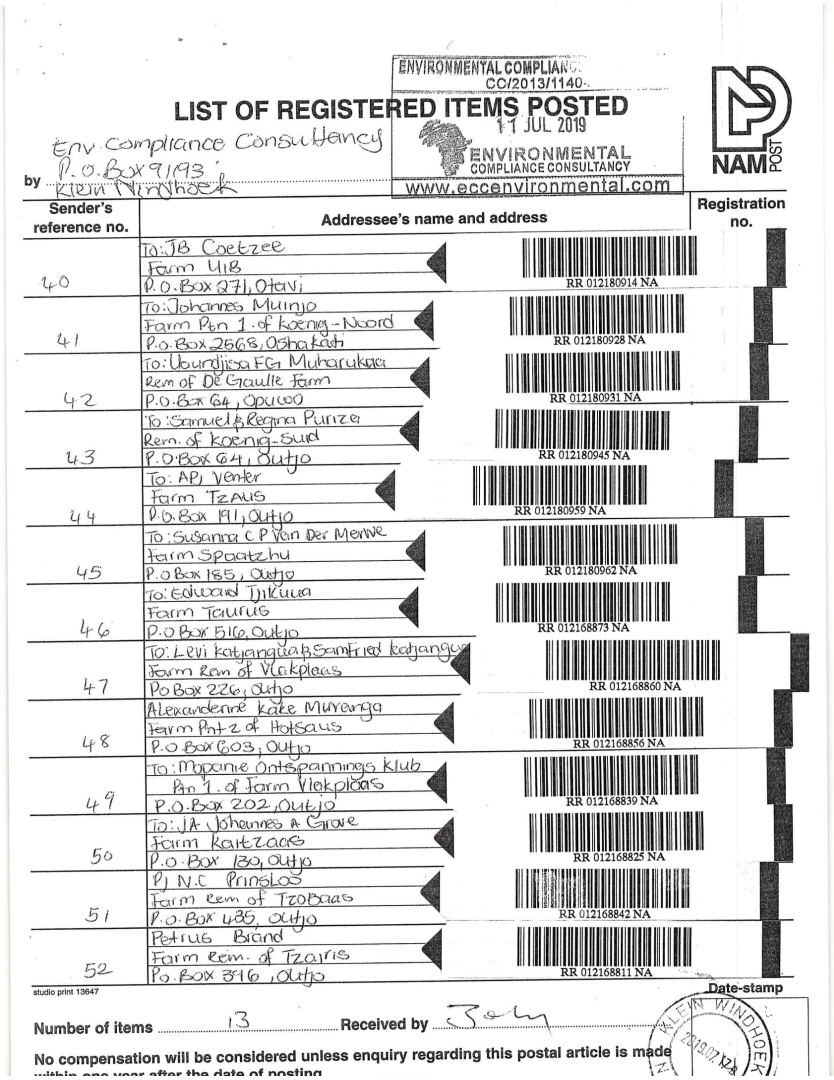

ENVIRONMENTAL COMPLIANCE CC/2013/1140

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40	To: JB Coetzee Farm 418 P.O.Box 271, Otavi	RR 012180914 NA
41	To: Johannes Muinjo Farm Ptn 1 of Koeing-Noord P.o.Box 2668, Oshakati	RR 012180928 NA
42	To: Dourdjisa FG Muharukua Rem of De Gaulle Farm P.O.Box 64, Opuwo	RR 012180931 NA
43	To: Samuel & Regina Punze Rem. of Koeing-Suid P.O.Box 64, Outjo	RR 012180945 NA
44	To: AP Venter farm Tzaris P.O.Box 191, Outjo	RR 012180959 NA
45	To: Susanna C P Van Der Merwe farm Spoetzhu P.O Box 185, Outjo	RR 012180962 NA
46	To: Edward Tjikuua Farm Taurus P.O Box 516, Outjo	RR 012168873 NA
47	To: Levi katjangua & Samfried katjangua Farm Rem of Vlakpleas Po Box 226, Outjo	RR 012168860 NA
48	Alexandenne kake Murenga farm Ptn 2 of Hotsaus P.O Box 603, Outjo	RR 012168856 NA
49	To: Mopanie Ontspannings Klub Ptn 1 of farm Vlakpleas P.O.Box 202, Outjo	RR 012168839 NA
50	To: JA Johannes & Grove farm Kaitzaos P.O.Box 130, Outjo	RR 012168825 NA
51	PJ N.C Pringlos Farm Rem of Tzobaas P.O.Box 485, Outjo	RR 012168842 NA
52	Petrus Brand Farm Rem. of Tzaris Po.Box 396, Outjo	RR 012168811 NA

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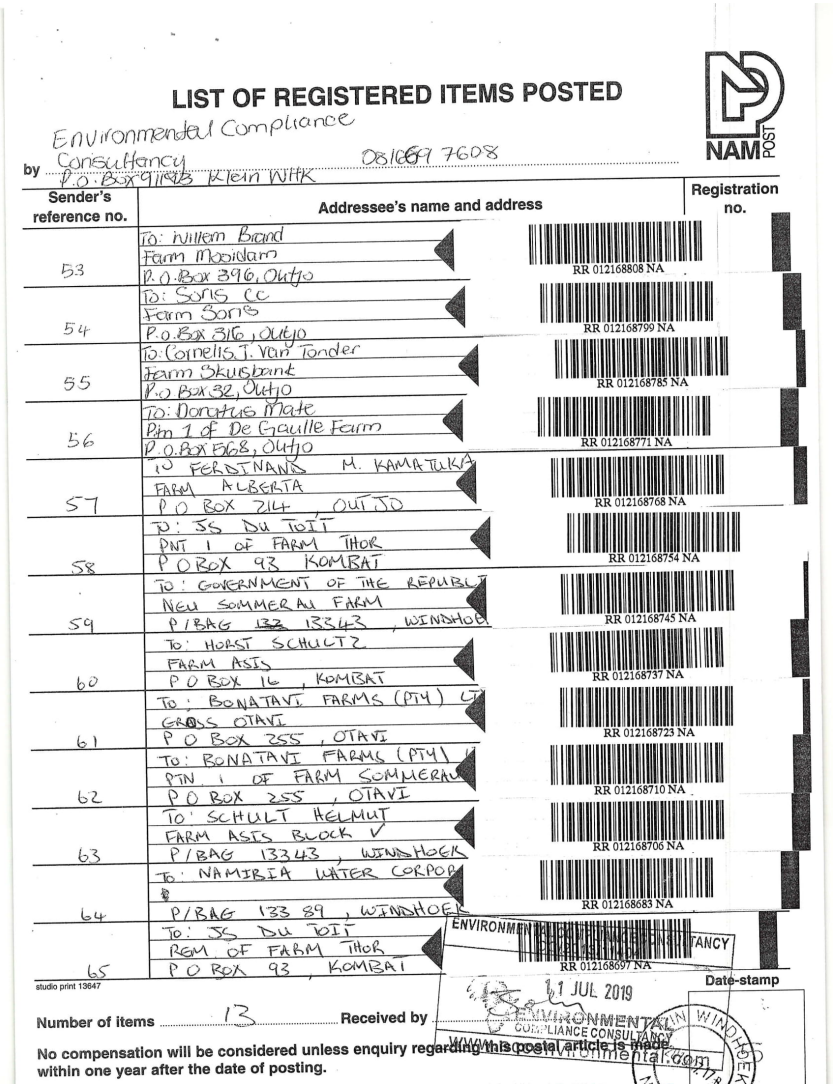

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NAM POST

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54	To: Soris CC Farm Soris P.O.Box 316, Outjo	RR 012168799 NA
55	To: Cornelis J. Van Tonder farm Skuysbank P.O Box 32, Outjo	RR 012168785 NA
56	To: Dorothus Mate Ptn 1 of De Gaulle Farm P.O.Box 568, Outjo	RR 012168771 NA
57	TO FERDINAND M. KAMATUKA FARM ALBERTA P O BOX 214, OUTJO	RR 012168768 NA
58	TO: JS DU TOIT PNT 1 OF FARM THOR P O BOX 93 KOMBAT	RR 012168754 NA
59	TO: GOVERNMENT OF THE REPUBLIC NEW SOMMERAU FARM P/BAG 13343, WINDHOEK	RR 012168745 NA
60	To: HORST SCHULTZ FARM ASIS P O BOX 16, KOMBAT	RR 012168737 NA
61	To: BONATAVI FARMS (PTY) LT GROSS OTAVI P O BOX 255, OTAVI	RR 012168723 NA
62	To: BONATAVI FARMS (PTY) L PTN 1 OF FARM SOMMERAU P O BOX 255, OTAVI	RR 012168710 NA
63	To: SCHULT HELMUT FARM ASIS BLOCK V P/BAG 13343, WINDHOEK	RR 012168706 NA
64	To: NAMIBIA WATER CORPOR P/BAG 13389, WINDHOEK	RR 012168683 NA
65	To: JS DU TOIT REM OF FARM THOR P O BOX 93, KOMBAT	RR 012168697 NA

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REFERENCE: ECC-88-234-LET-06-A
10th of July 2019

Identified Stakeholder and or Potentially Interested Party for:
Votorantim Metals Namibia Exploration Activities on EPL 7214

Dear Sir or Madam:

RE: ENVIRONMENTAL CLEARANCE CERTIFICATE FOR EXPLORATION ACTIVITIES ON EPL 7214 FOR BASE AND RARE METALS, INDUSTRIAL MINERALS, PRECIOUS METALS IN KUNENE REGION, NAMIBIA.

Environmental Compliance Consultancy (ECC) has been engaged by Votorantim Metals Namibia (Pty) Ltd (the Proponent) to act on their behalf for the Environmental Clearance Certificate application for the proposed exploration activities for base and rare metals, precious metals, industrial minerals, precious metals on EPL 7214, in Kunene Region, Namibia.

ECC is conducting the Environmental Impact Assessment (EIA) in terms of the Environmental Management Act, 2007.

The proposed project is to conduct mineral exploration activities on EPL 7214. As part of the proposed low impact, non-intrusive exploration project, the following activities are envisaged, which shall be confirmed as the exploration program is refined:

- Potential creation of access tracks, where existing tracks are not available or cannot be utilised;
- Limited vegetation clearing for the potential creation of tracks;
- Drilling of exploration boreholes;
- Exploration methods may include soil and rock sampling, electromagnetic surveys, drilling and drill-core sampling; and
- Transport and storage of soil, rock and drill-core (all mineral) samples.

This letter is intended to engage stakeholders and potentially Interested and Affected Parties (I&APs) of the project and provide a communication channel to ECC, the environmental consultants for the project. You have been identified as either a stakeholder, interested or affected party, therefore ECC wishes to provide you with the details as to how you can become involved in the project.

Public participation is an important part of the EIA process, as it allows public and stakeholders to obtain information about the proposed project. Public participation occurs at various stages throughout a project lifecycle including:

- Advertising in newspapers.
- Distributing a Non-Technical Summary (NTS) to identified stakeholders and I&APs.
- Registered I&APs will also be informed of the available draft scoping report for a 21 comment and review period, during this period I&APs will have the opportunity to review the draft document and raise

PO BOX 91193 Windhoek Namibia
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CC/2013/11404

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any issues or concerns.

- Stakeholders and I&APs who wish to register as an I&APs must do so on the ECC website as per the link provided below: https://eccenvironmental.com/projects/

If you are unable to complete the registration form online please email info@eccenvironmental.com and request an electronic copy of the form that you can complete, sign, scan and return via email to info@eccenvironmental.com to register as an I&AP for the project.

ECC values community input and participation in our projects and we look forward to working with you as the project develops. The Non-Technical Summary (NTS) can be obtained from our website (or emailed to you upon request) and provides a brief overview of the proposed project https://eccenvironmental.com/project/

Should you have any questions or require additional information please do not hesitate to contact either Mr. Stephan Bezuidenhout or Mrs. Jessica Mooney.

Yours sincerely,

Stephan Bezuidenhout
Environmental Compliance Consultancy
Office: +264 81 669 7608
Email: stephan@eccenvironmental.com

Jessica Mooney
Environmental Compliance Consultancy
Office: +264 81 669 7608
Email: jessica@eccenvironmental.com

INTERESTED AND AFFECTED PARTIES REGISTRATION FORM

PROJECT DETAILS

ECC Project Reference: ECC-88-234 Votorantim Metals EPL 7214

Project Title: Exploration Activities on EPL 7214

Applicant: Votorantim Metals

This form serves to register Interested and Affected Parties (I&AP's) for the above-mentioned project(s) and to solicit input and participation. This form will be submitted to the competent authority for consideration in the decision making process.

INTERESTED AND AFFECTED PARTIES (I&AP) DETAILS	
Title (Mr/Mrs/Dr/Prof.):	**Mr**
First Name:	**Frank**
Surname:	**Bockmühl**
Cell Phone:	**+264811278665**
Telephone other:	**--**
Email Address:	**f.bockmuhl@gmail.com**
Postal Address:	**P.O. Box 74 Outjo**
Organisation and/or property description (if landowner/lawful occupier)	**Farm Tsuwandes #107 Outjo**
Stakeholder Group *(please tick)*	☒ **Member of Affected Community** ☐ **Non-Governmental Organisation (NGO)** ☐ **Provincial or Government Official** ☐ **Local or District Official**
GENERAL INTEREST IN THE PROJECT	
Please describe the nature of your interest in this project.	**I am a landowner.**

INTERESTED AND AFFECTED PARTIES REGISTRATION FORM

GENERAL INTEREST IN THE PROJECT	
Do you have any specific concerns associated with the Project (for example: water, soil, pollution, Cultural or historical)?	**Groundwater pollution, erosion, sensitive plant habitats, aquifer protection zones** **As described in the comprehensive document which is attached.**
If you know of anyone else who should be informed about the project, please provide their contact details:	
Title (Mr/Mrs/Dr/Prof.):	
First Name:	
Surname:	
Cell Phone:	
Telephone other:	
Email Address:	
Postal Address:	
Organisation and/or property description (if landowner/lawful occupier)	

ECC respectfully requests that you please sign this letter and return it to info@eccenvironmental.com to confirm that you have received notification with regard to the above, and to ensure that your comments, concerns or objections are recorded. All comments, queries, and concerns must be received via this I&AP registration form and questionnaire or alternate means. Please note that only registered I&AP's will included in future correspondence regarding this process.

Signed..... Name..... Date.....

PLEASE SEE AND TAKE NOTE OF THE FOLLOWING PAGES.

Geological Exploration on Farm Tsuwandes #107 Outjo District

Description of concerns registered.

Contents

1. Description of property

Farm Tsuwandes is partially covered by EPL 7214. The southern approximately 30% is excluded from exploration activities. **Figure 1** (as supplied by Environmental Compliance Consultancy).

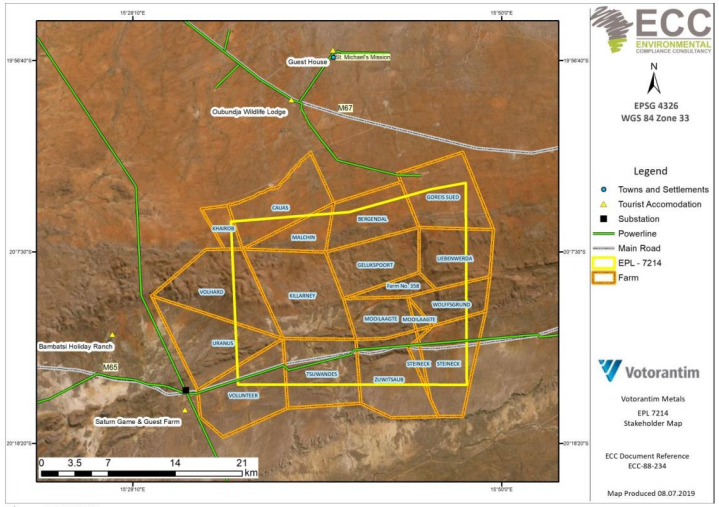


***Figure 1** EPL 7214*

The farm is generally sloping from north to south as well as from east to west. Dendritic drainage patterns as well as profile lines indicate this sloping character. **Figure 2** below indicates mapped primary, secondary and tertiary drainage channels.

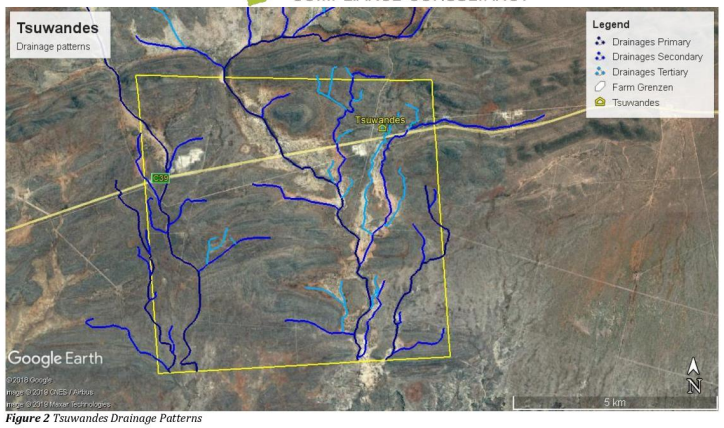


***Figure 2** Tsuwandes Drainage Patterns*

To indicate the severity of elevation changes, a few elevation profiles are included.

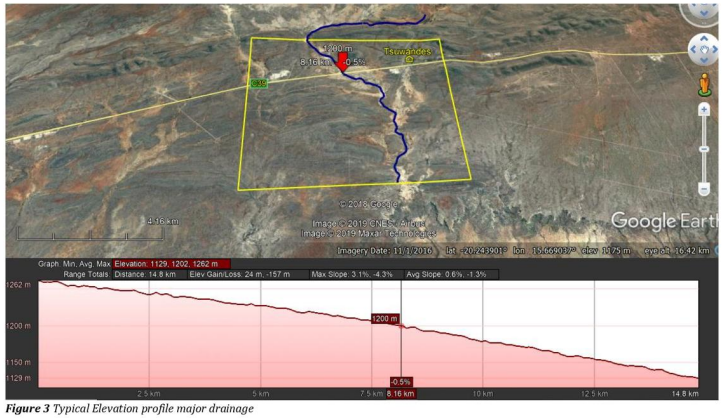


***Figure 3** Typical Elevation profile major drainage*

The main north south river channel indicates high energy flow during occasional heavy or even moderate rainfall events. **Figure 3**.
The highest point on Tsuwandes is at approximately 1385 mamsl, while the lowest elevation is around 1145 mamsl. **Figure 4**.

***Figure 4** Typical Elevation profile 2*

2. Special Treatment Areas

2.1. Erosion

The farm is characterised by severe elevation differences as described above. This permanently is cause for erosion, which needs to be constantly managed. Taking this into consideration, there are a few areas on the farm which are covered by argillaceous and silty sediments. These are particularly prone to erosion, especially along vehicle tracks within these zones. These tracks become more eroded, if used by heavy machinery. After Tsuwandes has experienced 6 poor to very poor rain seasons, denudation in these areas is extreme, which will thus contribute to erosion when rains commence hopefully within the envisaged exploration time frame. **Figure 5** indicates a preliminary mapping of these zones which need to be treated very carefully.

- Absolutely no bulldozing will be permitted in these areas.
- Heavy vehicle traffic must be kept to an absolute minimum.
- All tracks made by heavy vehicle traffic will immediately after drilling activities in that area are completed, be rehabilitated to the satisfaction of the landowner.

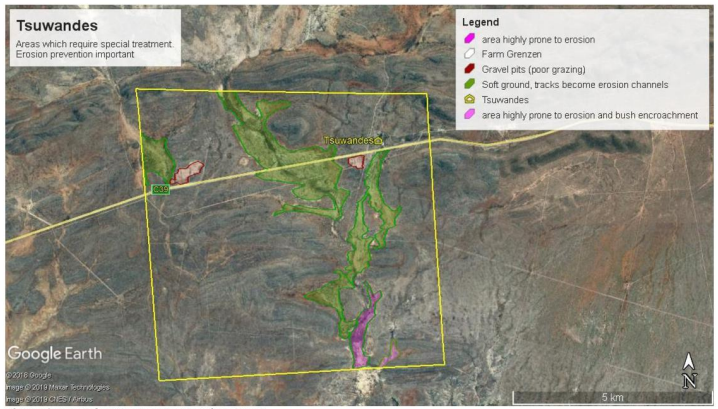


Figure 5 *Tsuwandes Areas require special treatment*

2.2. Water and vegetation

On Tsuwandes a few areas of very shallow groundwater are found. Water tables of less than 10 m are easily contaminated and need to be protected. These shallow water table environments also are the host area for quite large sensitive vegetation habitats, with a concentration of a variety of extremely large

trees in a forest: Combretum imberbe, Colophospermum mopane and Ficus sycomorous to name a few. These areas are indicated on **Figure 6** and **Figure 7** respectively. Large riverine tree growth is also recorded along most of the drainage channels.
Sensitive plant habitats are not only restricted to water bodies: In the central mountainous terrain a large variety of protected species are found.

- Drilling in the north eastern corner of the farm needs to be highly controlled:
  - Drill chemicals need to be approved to be non-hazardous and bio-degradable (environmentally friendly)
  - All boreholes need to be sealed with bentonite after drilling and geophysical surveying
  - Absolutely no Combretum imberbe trees to be cleared.
  - C. mopane trees can only be cleared after consultation with landowner.
  - Within the fenced gardening area drilling can only be done after discussions with landowner and agreed modus operandi and agreed rehabilitation methodology has been accepted.
- The area with shallow water table in the south west of the farm, which is also host to sensitive vegetation falls outside EPL7214.
- Drilling along river and drainage channels must not be at the cost of sensitive vegetation.

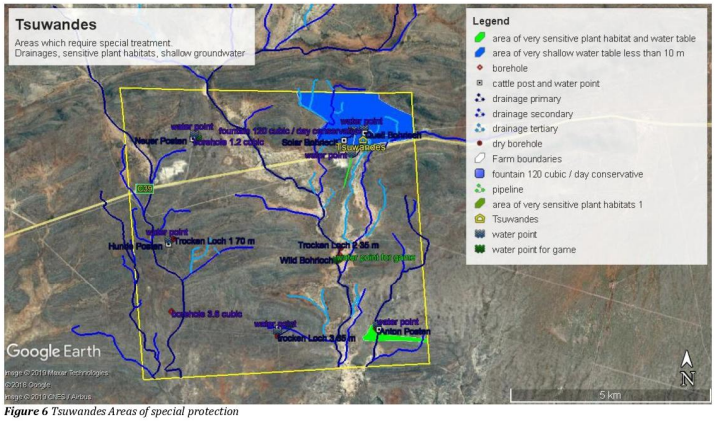


Figure 6 *Tsuwandes Areas of special protection*

***Figure 7** Sensitive plant habitat around fountain area*

3. Activity Zoning

The farm has been zoned according to permaculture principles. All exploration activities should please take the high-intensive activity zone around the homestead into consideration.
Figure 8 below indicates this zoning.

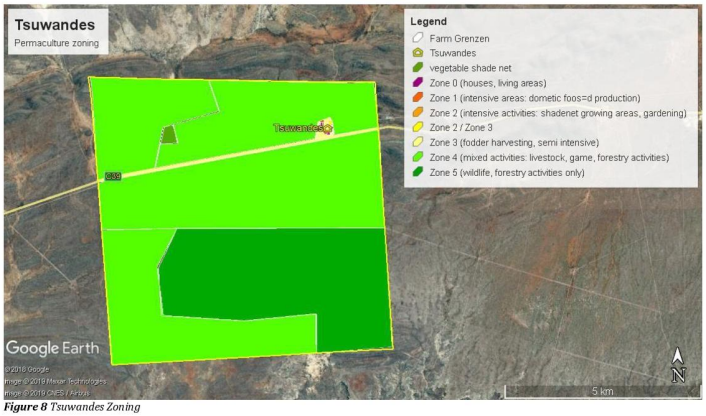


***Figure 8** Tsuwandes Zoning*

4. What can Tsuwandes offer to the Exploration Company?

4.1. Infrastructure

Tsuwandes is a well-developed livestock farm with adequate well-kept fences. Most of these fences have access tracks on one side which can be used for exploration vehicles. **Figure 9**.

***Figure 9** Tsuwandes Fences*

Water points are conservatively operated with solar pumping equipment. Water is thus no0t available for drilling purposes. See **4.3** below.

A map of tracks and roads is also prepared and could be used for planning purposes for optimizing exploration activities. **Figure 10**.

4.2. Campsite for exploration personnel

At the homestead on Tsuwandes a camping site is available for two or three persons which could be used during the sampling and geophysical survey phase exploration. The site includes tent sites, a flush toilet and shower with hot water supply.

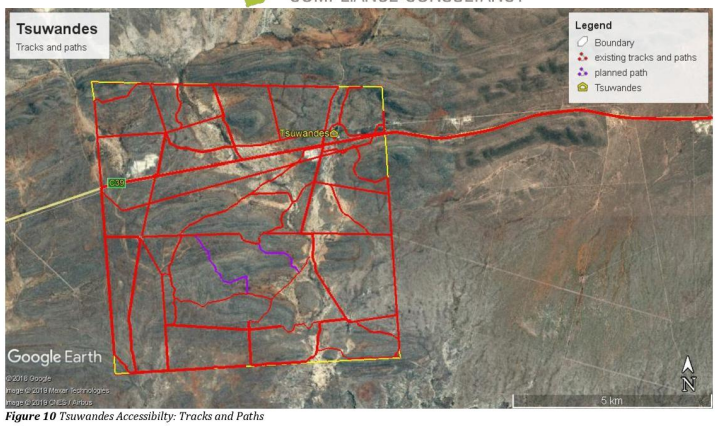


***Figure 10** Tsuwandes Accessibilty: Tracks and Paths*

4.3. Driller's Construction Camp and Water Supply

Should the exploration on Tsuwandes continue to include exploration drilling, then it would be a requirement that the drilling contractor has his own campsite or depot. This site can be made available on Tsuwandes. An own water supply borehole needs to be drilled and constructed for water supply to this camp and to the supply water for drilling purposes. See **Figure 11** for details.

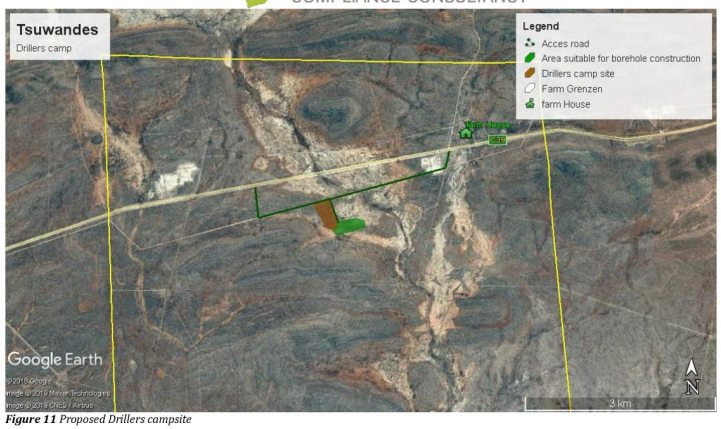


Figure 11 *Proposed Drillers campsite*

5. Security

Tsuwandes has a severe poaching problem. As a result of this, a private anti-poaching company has been employed to help control this. It would thus be appreciated that all personnel deployed by the Exploration Company, the Geophysical Contractor and especially the Drilling Company be clearly identified. A list of employees of the drilling company with valid identity documents must be supplied to the Security Company to enable them to verify the legality of people working on Tsuwandes.

6. Summary

It would be appreciated that the above issues be incorporated in the environmental clearance certificate:

- Erosion control measures as well as rehabilitation of possible erosion scars.
- Protection of shallow groundwater areas.
- Protection of sensitive plant habitats
- Avoidance of disturbance of wildlife especially in zone 5.
- Camping area for Drilling Contractor with own water source.
- Security issues.

It would further be appreciated that all environmental issues and directives by the Ministry of Agriculture Water and Forestry (water issues) and the Ministry of Environment and Tourism be adhered to.

Compiled and submitted electronically as well as hard copy to ECC.

.....
Frank Bockmühl
Date 21/08/2019

ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

NOTICE OF ENVIRONMENTAL ASSESSMENT & PUBLIC PARTICIPATION PROCESS

EXPLORATION ACTIVITIES ON EPLs 7213, 7214 & 7342
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, 2007 will be made as per the following:

Applicant: Votorantim Metals Namibia (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Kunene and Otjozondjupa Regions, Namibia

Project: Exploration activities on EPL 7213, EPL 7214 and EPL 7342 for Base and Rare Metals, Industrial Minerals, Precious Metals, Semi-Precious Stones in the 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, Semi-Precious Stones. Exploration methods may include geochemical surveys (soil and rock sampling), geophysical surveys (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 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 **11th of July 2019 – 1st August 2019.**

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-88-234-ADT-08-C

Votorantim Metais

LIST OF PROPOSED LEASE PORTIONS FOR OUTDOOR CABINETS ON MUNICIPAL SIDE WALK

Proposed MSAN Sites for Copper Shoertening Windhoek

#	SITE NAME	ERF	STREET NAME	SURBURB	SIZE (m²)
1	NOR MSAN	6939	Newcastle	Windhoek	2
2	VDB MSAN	3516	Iscor	Windhoek	2
3	THO MSAN	6330	Thompson	Windhoek	2
4	REN MSAN	137	Rendsburge	Lafrenz	2
5	ETA MSAN	RE/5718	c/o Etienne Rosseau & Anton Rupert	Windhoek	2
6	ARE MSAN	1	c/o Arebbusch & Omatjene	Cimbebasia	2
7	MMC MSAN	103	c/o Michelle McLean & Nickel	Prosperita	2
8	COB MSAN	73	c/o Michelle McLean & Cobalt	Prosperita	2
9	PLT MSAN	R/49	c/o Michelle McLean & Platinum	Prosperita	2
10	OPR MSAN	345	c/o Ongoporo & Nickel	Prosperita	2
11	GST MSAN	202	c/o Gold & Silver	Prosperita	2
12	KLK MSAN	330	c/o Kleine Kuppe & Rietfontein	Kleine Kuppe	2
13	ERS MSAN	1374	Erasmus	Pionierspark	2
14	SCH MSAN	RE/1336	Scheppmann	Pionierspark	2
15	TAG MSAN	1261	Robin	Hochland Park	2
16	IND MSAN	5492	c/o Independence Ave & Dr. Aby May	Windhoek	2
17	TAL MSAN	1/B/291	c/o Tal & Venning	Windhoek	2
18	GAR MSAN	5378	c/o Independence Ave & Garten	Windhoek	2
19	PAS MSAN	3691	c/o Pasteur & van Rhijn	Windhoek	2
20	PAV MSAN	675	c/o Pavlov & John Albrecht	Windhoek	2
21	PUL MSAN	3917	c/o Pullman & Rowan	Windhoek	2
22	KUS MSAN	115	c/o Kuiseb & Olof Palme	Eros Park	2
23	SCA MSAN	RE/132	c/o Schanzen & Nelson Mandela Ave	Klein Windhoek	2
24	OLF MSAN	R/1	c/o Von EckenBrecher & Olof Palme	Klein Windhoek	2
25	JMI MSAN	2455	c/o Gevers & Joseph Mukwayu Ithana	Klein Windhoek	2
26	GEV MSAN	967	c/o Gevers & Joseph Mukwayu Ithana	Klein Windhoek	2
27	NDR MSAN	3469	Namdaries/St.Michaels	Klein Windhoek	2
28	BAB MSAN	RE/3048	c/o Babs & Joseph Mukwayu Ithana	Klein Windhoek	2
29	SCU MSAN	720	Sculptor	Dorado Park	2
30	HER MSAN	33	Hercules	Dorado Park	2
31	HYD MSAN	188	c/o Abdromeda & Hydra	Dorado Park	2
32	VIR MSAN	1925	c/o Martha & Visarend	Khomasdal	2
33	GLD MSAN	6352	c/o Gladiola & Visarend	Khomasdal	2
34	KRN MSAN	107	Kornalyn	Khomasdal	2
35	PTS MSAN	4335	Pietersen	Khomasdal	2
36	KLP MSAN	6596	Andrew Kloppers	Khomasdal	2
37	BEI MSAN	155	c/o Beij & Bonn	Otjomuise	2
38	BON MSAN	2727	Bonn	Otjomuise	2
39	DIS MSAN	10577	c/o Claudius Kandovazu & Hendrik Isaak	Katutura	8.3
40	PEN MSAN	9896	Sukkot & Penning		
41	SUK MSAN	9896	Sukkot & Clemence Kapuuo	Katutura	2
42	ANM MSAN	1506	c/o Andrew Mogalie & Claudius Kandovazu	Katutura	2
43	KIN MSAN	8776	c/o Shanghai & Kindergarten	Katutura	2
44	SAG MSAN	158	c/o Shanghai & Andrew Mogalie	Katutura	8.3
45	HDG MSAN	RE/7350	Hans-Dieter Genscher	Katutura	2
46	TJI MSAN	RE/7349	Hans-Dieter Genscher & Tjikati	Katutura	2

Ebenos Technology

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR SEGMENT 4 OF THE AFRICA COAST TO EUROPE (ACE) SUBMARINE CABLE SYSTEM TO BE LANDED IN SWAKOPMUND, NAMIBIA
&
INVITATION TO A PUBLIC MEETING

Tortoise Environmental Consultants (TEC) hereby notifies all interested and affected parties (I&APs) that an application for Environmental Clearance Certificate will be submitted to the Environmental Commissioner, in accordance with the provisions of the Environmental Management Act (No. 7 of 2007) and EIA Regulations (GN 30 of 2012) as follows:

Project Name: Installing Africa Coast to Europe (ACE) submarine cable system

Proponent:
Ebenos Technology Solution (Pty) Ltd

Project Location:
Onshore (A) Land Section: Swakopmund Townlands, ERF 365 Extension 1, measuring 8,990.92m², zoned Local Business, Erongo Region
Offshore (B) Marine Section: Namibian Coast (west of Swakopmund) circa 500Km

Public Meeting Date: Friday, 19th July 2019
Venue: Swakopmund Plaza Hotel, No.42, Libertina Amadhila Street, Swakopmund
Time: 10H00 – 13h00

Deadline for comments: 26th July 2019

To register, please submit your details to:

Marine Section
Tortoise Environmental Consultants (TEC)
Email: Info@tec.com.na
Mobile: 081 147 7889

Land Section
Centre for Geosciences Research cc
CEGEOR
Email: cegeornam@gmail.com
Mobile: 085 641 9511

Republic of Namibia

African Development Bank

MINISTRY OF EDUCATION, ARTS AND CULTURE

EDUCATION AND TRAINING QUALITY IMPROVEMENT PROJECT (ETQIP)

INVITATION FOR BID

This Invitation for Bids (IFB) follows the General Procurement Notice (GPN) for this Education and Training Quality Improvement Project that appeared in United Nations Development Business online (UNDB online) No. 1 of 27 April 2018; on the African Development Bank's Internet Website; and in the local newspapers on 27 April 2018.

The Ministry of Education, Arts & Culture hereby invites interested, reputable and experienced companies to bid for the **Renovations and Refurbishment of Dibasen Secondary School in Okombahe, Erongo Region, and Okakarara Secondary School in Okakarara, Otjozondjupa Region.**

The Ministry of Education, Arts and Culture, on behalf of the Government of the Republic of Namibia has received a loan from the African Development Bank (AfDB) towards the cost of the Education and Training Quality Improvement (ETQIP). It is intended that part of the proceeds of this loan will be applied to eligible payments under the contract for renovations and rehabilitation/upgrading of schools and hostels, construction and expansion of Technical, Vocational Education and Training (TVET) centres, and UNAM Veterinary Teaching Hospital.

A.DESCRIPTION:	RENOVATION AND REFURBISHMENT OF DIBASEN SECONDARY SCHOOL IN OKOMBAHE, ERONGO REGION
Procurement Reference Number: W/ONB/010-04/2019/20	
BIDDING DOCUMENTS:	Available from **11th July 2019**; at Government Office Park, Room 109, 1st Floor, Left wing Windhoek
LEVY:	N$300.00 (Non-refundable)
SITE- VISIT:	29 July 2019 at 10:00: Lordsville Junior Secondary School in Okombahe, Erongo Region
CLOSING DATE:	09th August 2019 at 10h00
OPENING:	09th August 2019 at 10h00
REQUIREMENTS:	Interested bidders must provide information indicating that they are qualified to perform the services including;

i. Proof that they have a minimum average construction turnover of N$1,750,000. over the last 5 years.
ii. A profile of the company; indicating the capacity, proof of owning the relevant equipment, financial soundness and experience in undertaking construction of such extend.
iii. A detailed project plan outlining the implementation schedule and methodology in executing the envisaged project.
iv. Proof of the following statutory and professional industry registration requirements:
- Valid company registration certificate
- Original valid / certified good standing Tax Certificate
- Original valid Good Standing from the Social Security Commission
- Valid certified Affirmative Action compliance certificate from the Office of the Employment Equity Commissioner.
- Written undertaking that the salaries are in terms of the Labor act.

B.DESCRIPTION:	RENOVATION AND REFURBISHMENT OF OKAKARARA SECONDARY SCHOOL IN OKAKARARA, OTJOZONDJUPA REGION
Procurement Reference Number: W/ONB/010-03/2019/ 20	
BIDDING DOCUMENTS:	Available from 11th July 2019 at: Government Office Park, Room 109, 1st Floor, Left wing Windhoek
LEVY:	N$300.00 (Non-refundable)
SITE- VISIT:	30th July 2019 at 10:00: at Mariental High School in Okakarara, Otozondjupa Region
CLOSING DATE:	09th August 2019 at 10h00
OPENING:	09th August 2019 at 10h00
REQUIREMENTS:	Interested bidders must provide information indicating that they are qualified to perform the services including;

i. Proof that they have a minimum average construction turnover of N$1,725,000.00 over the last 5 years.
ii. A profile of the company; indicating the capacity, proof of owning the relevant equipment, financial soundness and experience in undertaking earthworks of such extend.
iii. A detailed project plan outlining the implementation schedule and methodology in executing the envisaged project.
iv. Proof of the following statutory and professional industry registration requirements:
- Valid company registration certificate
- Original valid / Certified good standing Tax Certificate
- Original valid Good Standing from the Social Security Commission
- Valid certified Affirmative Action compliance certificate from the Office of the Employment Equity Commissioner.
- Written undertaking that the salaries are in terms of the Labor act.

ENQUIRIES:
Mr. G. Besser / Mr. S. Kandjavera
Geoff.Besser@moe.gov.na, 061- 293 3045
Siegfried.Kandjavera@moe.gov.na, 061- 293 3510

ECC ENVIRONMENTAL COMPLIANCE CONSULTANCY

NOTICE OF ENVIRONMENTAL ASSESSMENT & PUBLIC PARTICIPATION PROCESS

EXPLORATION ACTIVITIES ON EPLs 7213, 7214 & 7342
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, 2007 will be made as per the following:

Applicant: Votorantim Metals Namibia (Pty) Ltd
Environmental Assessment Practitioner (EAP): Environmental Compliance Consultancy
Location: Kunene and Otjozondjupa Regions, Namibia

Project: Exploration activities on EPL 7213, EPL 7214 and EPL 7342 for Base and Rare Metals, Industrial Minerals, Precious Metals, Semi-Precious Stones in the 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, Semi-Precious Stones. Exploration methods may include geochemical surveys (soil and rock sampling), geophysical surveys (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 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 **11th of July 2019 – 1st August 2019.**

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-88-234-ADT-08-C

Votorantim Metais

INTEGRATION

Expression of Interest to:

Support the establishment of a Start-up Center in Windhoek

Background:
INTEGRATION (www.integration.org) is participating in a tender for a GIZ-funded project to establish a Start-up Center in Windhoek. Tentative start-date is 1 December 2019. Project duration: 30 Months. For this tender, we are looking for candidates to fill six long-term (i.e. full time) positions with the following profiles:

Languages: very good English language skills, local languages are an asset
General professional experience: preferably a minimum of 3 years working experience in economic development, private sector development, SME promotion or business incubation, or innovation management

Specific professional experience:
- At least 1 expert with two years proven work experience as a training coordinator, trainer, training facilitator or similar role
- At least 1 expert with professional knowledge of a range of digital and analogues fabrication methods and processes, and specific experience and demonstrable proficiency in at least four of the following areas: 3D Printers, Laser Cutters (Hobby & industrial), CNC Routers/Mills, Model Making, Carpentry/Woodworking, Metal Fabrication & Cold Work, Sewing & Embroidery
- At least 1 expert with two years proven experience in the ICT sector
- At least 1 expert with two years proven experience in communication, marketing or similar field
- Experience of human centred design thinking is an advantage
- All experts with good knowledge of the Namibian economy

Interested candidates are invited to submit an updated CV including relevant information by 31st July 2019 at the latest to Dr Musulwe nmusulwe@integration.org or nmusulwe66@yahoo.com.

INVITATION TO BID

NamPower

NamPower hereby invites qualified, competent and Namibian registered companies to submit their Bid for the under-mentioned:

Bid Numbers	Bid Descriptions
G/ONB/NPWR-01/2020	Designing, Manufacturing, Testing, Supply and Delivering of 2x 2.5MVA 66/22kV Dyn11 Power Transformers
G/ONB/NPWR-02/2020	Designing, Manufacturing, Testing, Supply, and Delivering of various Distribution Transformers

Closing Date: Friday, 23 August 2019 at 11h00 a.m. (Namibian time)

Cost per set of documents: Free

Bid documents availability: Documents for these bids are available on the NamPower website **www.nampower.com.na**

Details of Bid Submission:
Kindly submit your bid in a sealed envelope, clearly marked with the "BID NUMBER AND DESCIPTION" as stated above, to be deposited in the Bid box located at the entrance foyer at NamPower Centre, 15 Luther Street, Windhoek.

For Enquiries Contact:
Tel: +264 61 205 2324
Email address: bidclarifications@nampower.com.na

KINDLY NOTE: ALL INVITATIONS ARE SUBJECT TO THE PUBLIC PROCUREMENT ACT 15 OF 2015 AND ITS REGULATIONS AND GUIDELINES

UNAIDS

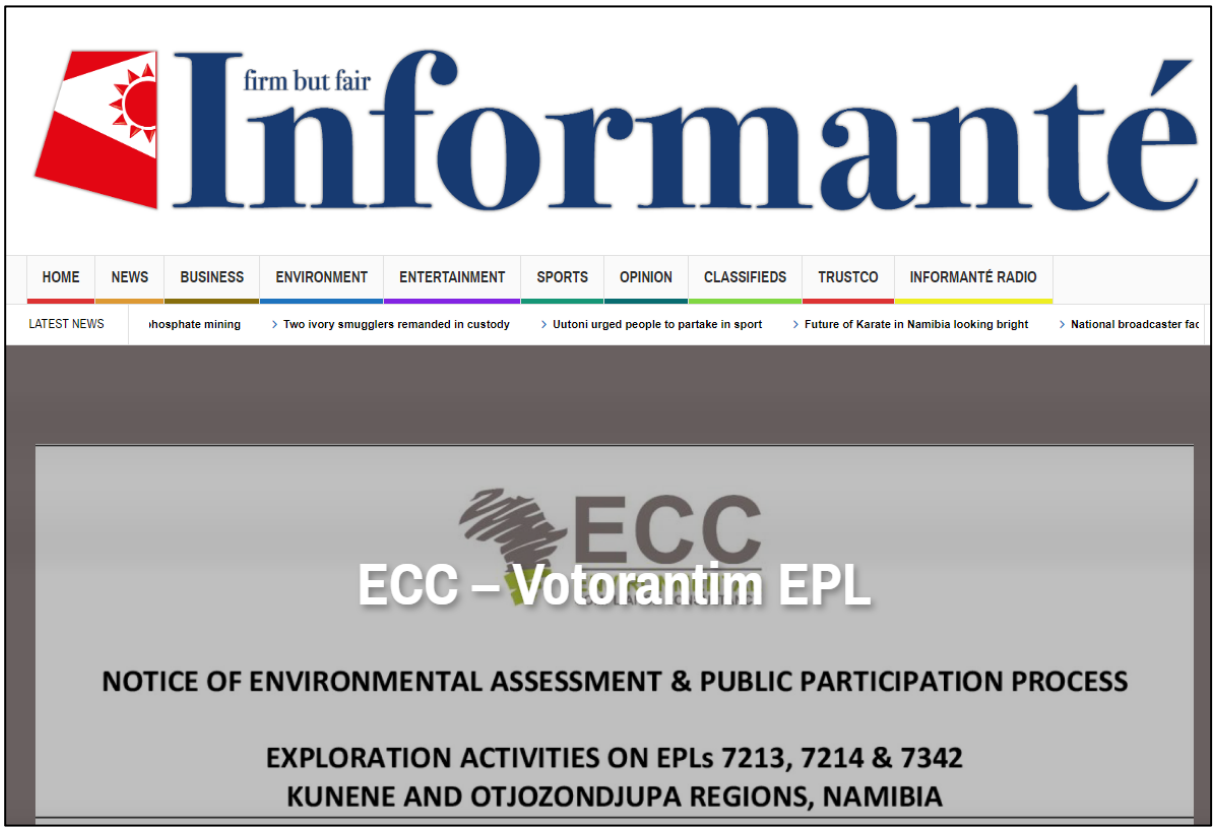
SALE OF CAR

The Joint United Nations Programme on HIV/AIDS (UNAIDS) is selling in "as-is" and "where-is" status the following equipment.
The Car is located at the UN House in Klein Windhoek, 38 Stein Street and can be inspected from 22 July 2019 from 09:00Hrs to 16:00Hrs
The interested individuals can send their offers by email to negongas@unaids.org indicating the amount of their offer which must be the same of higher than the base price.
The email must contain contact information to notify the bidder if his/her offer is the winning offer.
The deadline for submitting offers is 09 August 2019 at 12:00Hrs
The item will be allocated to the best offer one day after the deadline and they must be fully paid and retired latest on 30 August 2019.

For more information contact Selma Negonga on 061 - 204 6221.

ITEM	DESCRIPTION	QTY	BASE PRICE
1	Toyota Land Cruiser, 2006 Model. KM 95 000	1	150,000.00

The following was advertised in the Informante on the 11th July and 18th July 2019, (online newspaper).



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Applicant:	**Votorantim Metals Namibia (Pty) Ltd**
Environmental Assessment Practitioner (EAP):	**Environmental Compliance Consultancy**
Location:	**Kunene and Otjozondjupa Regions, Namibia**

Project: Exploration activities on EPL 7213, EPL 7214 and EPL 7342 for Base and Rare Metals, Industrial Minerals, Precious Metals, Semi-Precious Stones in the 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, Semi-Precious Stones. Exploration methods may include geochemical surveys (soil and rock sampling), geophysical surveys (electromagnetic surveys), drilling and drill-core sampling.

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Environmental Compliance Consultancy
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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-88-234-ADT-08-C

APPENDIX D - LIST OF PLANT SPECIES ON EPL 7214

SPECIES	PLANT DESCRIPTION	LOCATION NOTES
Abutilon engleranum Ulbr.		Tsuwandes 107 Farm
Acacia reficiens Wawra subsp. reficiens	Shrub, 7 feet high. The stems come near to each other out of the ground and then spread to the top as the Acacia detinens. Long white and short clawlike thorns. Fruit is a pod. Bark is slightly red.	Otjihorongo. 30 miles West of Outjo.
Achyranthes aspera L. var. aspera	Herb.	1.6 Miles from Outjo to Tsuwandes 107 Farm.
Adenolobus garipensis (E.Mey.) Torre & Hillc.	Shrub about 8 feet high. Flowers purple. Fruit is a pod. Stem pale. Leaves fold in middle at midrib.	Otjihorongo. 40 miles west of Outjo on stony calcrete soil.
Aptosimum decumbens Schinz	Prostrate, up to 70 cm long shoots. Flowers dark violet with black-violet throat.	Hillendale 238 Farm.
Barleria senensis Klotzsch	Flowers orange.	Tsuwandes 107 Farm
Chamaecrista absus (L.) H.S.Irwin & Barneby	Annual, small herb.	Farm Hillendale OU 238. Red sand.
Chascanum pinnatifidum (L.f.) E.Mey. var. pinnatifidum		Tsuwandes 107 Farm. On plain.
Cleome suffruticosa Schinz	Perennial about 1 feet high with chrome yellow flowers. Light coloured calcareous soil.	Tsuwandes 107 Farm, 35 miles west of Outjo.
Commicarpus fallacissimus (Heimerl) Heimerl ex Oberm., Schweick. & I.Verd.	Decumbent herb. Flowers present.	Tsuwandes 107 Farm
Cullen obtusifolia (DC.) C.H.Stirt.	Procumbent herb with grey/green leaves and light pink flowers and aromatic leaves.	About 60 km west Outjo.
Cyathula cylindrica Moq. var. abbreviata Suess.	Bracts tinged with purple.	Farm Mooilaagte 322, 41 miles west of Outjo on road linking Fransfontein and Kamanjab roads, across farm Tsuwandes.
Cyperus longus L. var. tenuiflorus (Rottb.) Boeck.		Tsuwandes 107 Farm. In garden at water.
Enneapogon cenchroides (Licht. ex Roem. & Schult.) C.E.Hubb.	Grass.	Farm Tsuwandes 107; in garden.
Eragrostis pilgeriana Dinter ex Pilg.	Grass.	Farm Tsuwandes 107, prostrate lawn at basin.
Eragrostis trichophora Coss. & Durieu	Grass up to 80 cm high in dense stands.	Farm Hillendale 238.
Fingerhuthia africana Lehm.	Erect, tufted grass, about 60 cm tall with dense stiff inflorescence tinged golden.	Outjo District, 60 km west of Outjo on the road to Khorixas.
Flaveria bidentis (L.) Kuntze	Erect, bushy herb with dense habit. Flowers: yellow, borne in dense clusters.	60 km west of Outjo on the road to Khorixas.
Hermannia modesta (Ehrenb.) Mast.	Herb. In watered garden.	Tsuwandes Farm 107.

SPECIES	PLANT DESCRIPTION	LOCATION NOTES
Hibiscus calyphyllus Cav.		Tsuwandes 107 Farm. In Omuramba.
Hibiscus castroi Baker f. & Exell var. castroi	Sub-herbaceous shrublet 2 feet high. Flowers white.	Farm Tsuwandes, 35.0 miles west of Outjo.
Hibiscus palmatus Forssk.	5 digitate leaves, flowers yellow.	Tsuwandes 107 Farm.
Hirpicium gorterioides (Oliv. & Hiern) Roessler subsp. gorterioides	Annual herb, up to 45 cm high. Leaves simple, lower surface silvery hairy. Heads big with up to 3 cm long rayflorets, light yellow.	Farm Hillendale 238.
Jatropha pseudoglandulifera Pax		On the road linking Fransfontein and Kamanjab roads across Farm Tsuwandes.
Justicia odora (Forssk.) Vahl	Perennial woody, sub-shrub, ± 0.40 m high. Flowers bright yellow, lobed three times exposed stamen. Fruit absent.	On the road from Khorixas to Outjo, 60 km before Outjo
Justicia platysepala (S.Moore) P.G.Mey.	Soft stemmed shrub with long stamens, 0.70 - 2 m high. Flowers white, upper lip purple in tube, palate yellow in centre with border of white then purple.	About 65 km from Outjo on road to Khorixas. Farm Babatsi.
Kissenia capensis Endl.		Mooilaagte 322 Farm. About 41 m west of Outjo on road linking Fransfontein and Kamanjab roads.
Leucas glabrata (Vahl) Sm. var. glabrata		Tsuwandes 107 Farm. In Omuramba.
Leucas pechuelii (Kuntze) Gürke	Freshly, sproutin, bright green dwarf shrubs in dense mopane woodland at house.	Tsuwandes 107 Farm, on calcrete.
Leucosphaera bainesii (Hook.f.) Gilg	Herb 50 cm tall, bushy, erect with grey/green leaves & straw - coloured flowers.	Outjo District 60 km west of Outjo on the road to Khorixas
Limeum pterocarpum (J.Gay) Heimerl var. apterum Friedrich	Annual herb up to 35 cm high. Flowers small white. Fruit each with one lateral spike, and winged.	Hillendale 238 Farm. In red sand.
Lycium bosciifolium Schinz	Shrub 6-8 feet. Mauve flowers.	20 miles west of Outjo - Fransfontein road. Mopane veld.
Lycium eenii S.Moore		Tsuwandes 107 Farm.
Megalochlamys marlothii (Engl.) Lindau	Shrub 0.15-0.23 m high. Flowers sky-blue with large bladdery bracts.	Tsuwandes 107 Farm. Some 56 km west of Outjo.
Melanthera marlothiana O.Hoffm.	Tall herb, flowers golden.	About 65 km from Outjo on road to Khorixas. Babatsi Farm.
Melinis repens (Willd.) Zizka subsp. grandiflora (Hochst.) Zizka	Erect, tufted, graminoid, 40 cm tall. Inflorescence: pearly pink.	About 60 km west of Outjo.

SPECIES	PLANT DESCRIPTION	LOCATION NOTES
Momordica humilis (Cogn.) C.Jeffrey	Climber. Climbing over bushes. Flowers orange-yellow.	10,4 miles from Tsuwandes 107 Farm, on road to Otjikondo.
Monechma cleomoides (S.Moore) C.B.Clarke	Very hairy.	Tsuwandes 107 Farm. Dolomite cave east of homestead.
Obetia carruthersiana (Hiern) Rendle	Shrub 8 feet high. Thorns on younger shoots and leaves, cause great irritation to skin.	40 miles West of Outjo between calcrete rocks.
Opilia campestris Engl. var. campestris	Grows as a shrub with contorted stems up to 8 feet tall. Bark smooth and almost black. Berry about half an inch long, tastes sweetish and is white when ripe.	Collected 40 miles west of Outjo on calcrete.
Oxalis purpurascens T.M.Salter		Tsuwandes 107 Farm.
Pegolettia senegalensis Cass.		52 km west of Outjo - mopane veld.
Petalidium rautanenii Schinz	Mountain shrub, 0.80 m high. Lush green with a lot of leaves.	Tsuwandes 107 Farm
Pogonarthria fleckii (Hack.) Hack.	Grass. Annual. Broad protruding tufts, up to 90 cm high. Inflorescence up to 30 cm long.	Outjo district. Hillendale 238 Farm.
Pogonarthria leiarthra Hack.	Grass.	Hillendale 238 Farm. West of Outjo, north road, behind junction to Fransfontein.
Polycarpaea eriantha Hochst. ex A.Rich. var. effusa (Oliv.) Turrill	Annual, small herb up to 5 cm high with roundish, rosette-like leaves at base. Leaves on shoots awl-like. Flowers small, white to pink.	Hillendale 238 Farm.
Ruellia patula Jacq.	Herb. Flowers delicate, purple.	Tsuwandes 107 Farm. On plain.
Ruelliopsis setosa (Nees) C.B.Clarke	Plant prostrate, rooting at nodes. Flowers deep blue with white tubes.	About 65 km from Outjo on road to Khorixas. Farm Bagaisi.
Sericorema sericea (Schinz) Lopr.		Tsuwandes 107 Farm.
Sesamum triphyllum Welw. ex Asch. var. triphyllum		Tsuwandes 107 Farm. Weed in garden.
Sesbania macowaniana Schinz		Tsuwandes 107 Farm. In garden.
Solanum capense L.		Tsuwandes 107 Farm. Plains.
Solanum tettense Klotzsch var. renschii (Vatke) A.E.Gonç.	Flowers purple.	Tsuwandes 107 Farm. Northern, red, sandveld.

SPECIES	PLANT DESCRIPTION	LOCATION NOTES
Sorghum bicolor (L.) Moench subsp. arundinaceum (Desv.) De Wet & Harlan	Perennial grass. Inflorescence open panicle up to 40cm long, (here 21cm long), secondary axes in whorls on central axes; spikelets up to 6mm long, covered in purple to purplish-red hairs. Leaves blade bright green, up to 1-3 cm wide, (here 7.5 mm-25 mm wide), tapering to sharp point. Stems culms robust, up to 2.5 mm in low-lying wet areas, shoots from lower nodes.	Farm Volunteer 106 Farm, 53km to Outjo from Khorixas.
Sorghum bicolor (L.) Moench subsp. bicolor	Erect tufted 1.5 m tall with inflorescence tinged pink.	60 km west of Outjo on the road to Khorixas.
Stipagrostis hirtigluma (Steud. ex Trin. & Rupr.) De Winter subsp. patula (Hack.) De Winter	Erect, tufted grass. Inflorescence lax.	60 km west of Outjo on the road to Khorixas.
Urochloa oligotricha (Fig. & De Not.) Henrard	Grass.	Tsuwandes 107 Farm. In garden.
Veronica anagallis-aquatica L.	Herb.	Tsuwandes 107 Farm. In garden, in water.

APPENDIX E - ECC CVS

Jessica Mooney

Director & Principal Environmental Practitioner

Hello! :)

ABOUT ME

Name
Jessica Mooney

Born
24 October 1984

Phone
+264 81 653 1214

Email
Jessica@eccenvironmental.com

Website
www.eccenvironmental.com

Contact me!

How to reach me!

+264 81 653 1214

Jessica.mooney7

+264 81 653 1214

Jessica Mooney

Education & Qualifications

Federation University Australia 2003-2006 — Bachelor of Applied Science -Environmental Management

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

Experience & Work History

Current

Environment Specialist

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

Nov 2013-Feb 2016

Group HSE Manager

Weatherly Mining Namibia
An exciting role covering the breadth of two operational underground mines (Otjihase and Matchless) and the construction of a new open pit mine (Tschudi) working for Weatherly Mining in Namibia, Africa.

- Managed company's SHEQ portfolio
- Full scale construction of new greenfield mine into operational copper mine
- Reduced LTIFR by 90% from 23.1 to 2.4 in 22 months!
- Implemented integrated management system
- Approvals, ECC renewals and EMPs
- Established the first mining environmental forums in Namibia
- Implemented SAFE COPPER cultural change programme

Jessica Mooney

Environment Specialist

References

Feel free to ask the boss

MR CRAIG THOMAS
Managing Director
Weatherly Mining

MR COLIN BULLEN
Managing Director
Imerys (client)

Group Manager Lihir Gold
MR NICK CURREY
Director at Sustainable Mining Strategies

Or ask those who have worked for me?

Ms Asteria Salmon
Worked as Control Room Operator WMN

Mr. Hermanus Lamprecht
Paramedic Safety Officer

Professional Associations

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

Fun Facts:

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

Words I live by:

'The journey will bring you happiest, not the destination'

Experience & Work History

Feb 2013-
Feb 2014

Environmental Consultant

Ensolve Pty Ltd - Australia
In February 2013 an opportunity came about to launch my own business, Blue Wren Environmental Services.

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

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

Jan 2010-
Feb 2013

Site Environmental Manager

Panoramic Resources – Australia

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

Jan 2007-
Jan 2010

Environmental Systems Coordinator

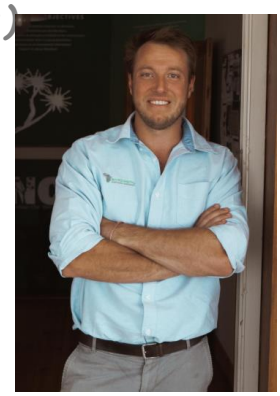
Lihir Gold Limited – Australia
Working on site to provide technical environmental and community advice to ensure all regulatory and licence obligations were met or exceeded

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

Stephan Bezuidenhout

ENVIRONMENTAL ASSESSMENT PRACTITIONER

Hello! :)



Name
Jacobus Stephan Bezuidenhout
- But you can call me Stephan -

Born
11 April 1989

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Contact me!

How to reach me!

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Stephan Bezuidenhout

Education & Qualifications

University of Pretoria
South Africa
2012

Postgraduate Degree in Environmental Management & Analysis

University of Stellenbosch
South Africa
2008

Bachelors in Applied Science

Additional Qualifications:

- Snake Bite and Snake Handling
- Level 1 & 2 First Aid
- Industrial Environmental Compliance

Publications:

N.S., et al., Some ecological side-effects of chemical and physical bush clearing in a southern African rangeland ecosystem, Southern African Journal of Botany (2015), http://dx.doi.org/10.1016/j.sajb.2015.07.012

The FSC National Forest Stewardship Standard of Namibia (Draft V 4). Co-authored by S Bezuidenhout, P Cunningham, A Ashby, F Detering, W Enslin & D Honsbein

Experience & Work History

Current

Managing Director

Since 2012, Stephan has been working as an environmental assessment practitioner. Stephan has a strong ecological background and has gained more than seven years' experience in the environmental industry. As a lead practitioner, Stephan has successfully driven environmental impact assessments and compliance assessments within Southern Africa. His hands on and practical experience and knowledge of international standards, such as IFC and World Bank standards allows Stephan to advise his clients and teams constructively and effectively.

ENVIRONMENTAL CONSULTANT & PRACTITIONER

Stephan manages a dynamic team of environmental practitioners and graduates at Environmental Compliance Consultancy. The firms' core objective is to improve the national standard of environmental compliance by developing local capacity. To date Stephan and his team have successfully completed over 30 projects for various industries, including mining, energy, infrastructure, conservation and tourism.

ENVIRONMENTAL
COMPLIANCE CONSULTANCY

Stephan Bezuidenhout

Managing Director
+264 81 262 7872

References

Feel free to ask the boss :)

SALOME BEESLAAR
Environmental Practitioner
Pr.Sci.Nat: 400385/14

ESCA COETZEE
Environmental Scientist
Sasol Technology

PHIL BARKER
Pipeline Construction Superintendent
Worley Parsons

Or ask those who have worked for me?

Michael Moreland
Environmental Scientist
CSP Solar Energy Projects

Professional Associations

- South African Institute of Ecologists and Environmental Scientists (SAIE&ES)
- Environmental Assessment Practitioners Association of Namibia (EAPAN#172).
- Member of FSC Environmental Chamber
- Executive Committee Member of Namibian Chamber of Environment

Fun Facts:

- Keen fisherman
- Passionate Hunter & Conservationist
- 21ft vessel certified skipper
- Summated Kilimanjaro
- Have survived scorpion stings and snakebites!
- Did I mention I love camping?

Words I live by:

'Do what makes you happy
the rest will follow'

Experience & Work History

Over the past two years he has mentored over eight interns (of which most still work closely with him) building their careers in environmental management, conservation and rangeland management.

Examples of projects successfully completed include:

- **Abengoa Solar SA Paulputs CSP (Pty) Ltd. 150 MW CSP Tower** Environmental Assessment Practitioner during EIA Process
  Northern Cape Province, South Africa
- **Abengoa Solar SA, Xina Solar One (200 MW) CSP Trough** Environmental Control Officer during construction phase. Northern Cape Province, South Africa
- **Abengoa Solar SA, Khi Solar One (50 MW) CSP Tower.** Environmental Control Officer during commissioning and rehabilitation phases. Northern Cape Province, South Africa for Abengoa Solar
- **Isondlo Project Support (IPS) (Pty) Ltd.** Soil Remediation and commissioning report of NGALA Camp. Gauteng, South Africa
- **Berekisanang Empowerment Farm.** Annual external Water Use Licence audit and 70 hectare agricultural development. Northern Cape, South Africa.

Environmental Coordinator

ROMPCO PIPELINE – Worley Parsons
Mozambique and South Africa

Stephan was employed by the Procurement, Management and Construction (PMC) consultant, Worley Parsons to manage the environmental aspects of the proposed linear development. Stephan managed a team of 12 positions for the duration of the project ensuring compliance of National and best practice such as IFC standards.

Titus Shuuya

SENIOR SCIENTIST ENVIRONMENTAL PRACTITIONER

Hello! :)

ABOUT ME

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Titus Shuuya

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14 April 1983

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References

JESSICA MOONEY
Environmental and Safety Consultant

DR. GILLIAN MAGGS-KÖLLING
Executive Director
Gobabeb Research and Training Centre

Words I live by:

'A slow movement of a cheetah is not a mistake but a calculated accuracy'

Education & Qualifications

Namibia University of Science and Technology, Namibia
2016

Master of Science in Natural Resources Management

University of Namibia, Namibia
2013

Bachelor of Science in Integrated Environmental Science

Experience & Work History

Current

Senior Scientist Environmental Practitioner

Environmental Compliance Consultancy
- Providing professional consulting services to clients
- Environmental Assessment activities
- Participate in environmental requirements of projects, including licences, monitoring and reporting
- Field work and on-site support
- Conduct training

Jul 2012 -Jul 2019

Senior Researcher

Gobabeb Research and Training Centre
- Managing all planning and logistical implementation of field projects, particularly with reference to the Biodiversity Research and Monitoring Program
- Data analysis and report writing
- Develop long-term ecological monitoring program for the uranium mines in fulfilment of their EMP requirements

Dec 2015 - Apr 2016

Ecologist

Cheetah Conservation Fund of Namibia (CCF)
- Assist in all aspects of CCF's ecology research
- Write research proposals and scientific publications
- Coordinate the de-bushing project and harvest and horticulture activities