Final Environmental Impact Assessment (EIA) Report: Exclusive ProspectingLicense (EPL) No. (EPL) No. 6959, KARIBIB /USAKOS DISTRICT, ERONGO REGION,NAMIBIA

MET ECC Application No.
APP-**221109000283**

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1. BACKGROUND

1.1 Introduction

Livelife Investments (Pty) Ltd (the Proponent) holds mineral rights under the Exclusive Prospecting License (EPL) No. 6959 for Nuclear Fuel groups. The EPL 6959 was granted on the 21/11/2018 and expired on the 20/11/2021. The renewal has been granted pending ECC on 18th October 2022. The EPL No. 6959 is located in the Karibib District of the Erongo Region, in the west- central Namibia. The EPL is located to the southwest of the Town of Usakos. The EPL 6959 area totalling 51537.0505 Hacover parts of the following private farmlands: 91 – Namibfotein, 92 -Vergenoeg, 93- Namib Plaas, 94-Bergrus, 62-Stinkbank and 102- Wolfkoppe

The Proponent intends to conduct exploration / prospecting activities starting with desktop studies andaerial surveys, followed by regional field-based reconnaissance work and if the results are positive, implement detailed site-specific field-based activities over key site-specific localities using techniques such as geological mapping, geophysical surveys, trenching, drilling and sampling for laboratory tests.

The impacts that the proposed / ongoing exploration activities and associated infrastructure such as access and temporary lay site will have on the receiving environment (physical, biological, socioeconomic environments and ecosystem functions, services, use and non-use values or passive uses) will depend on the extent of the proposed / ongoing activities over the development area, management of the area and how the mitigations as detailed in this EMP report are eventually implemented by the Proponent. Avoiding sensitive habitats such as Ephemeral River channels, rock heads and mountainous terrains as well as track discipline (including not killing/poaching of fauna and unnecessarily cutting down of trees) must be adhered to and/or enforced at all times. Mitigation measures shall be implemented as detailed in this EMP report.

Livelife Investments(Pty) Ltd (the **Proponent)** hold mineral rights under the Exclusive Prospecting License (EPL) No. 6959. The following is the summary of the EPL 6959:

- **Type of License:** Exclusive Prospecting License (EPL) No. 6959;
- **EPL Holder:** Livelife Investments(Pty) Ltd;
- **Granted Date:** 21/11/2018;
- **Expiry Date:** 20/11/2021;
- **Renewal Date:** 18/10/2022
- **Commodities:** Nuclear Fuel
- **Size of the EPL:** 51537.0505 Ha.

The Proponent intends to undertake exploration activities covering desktop studies, followed by site- specific activities using techniques such as geophysical surveys, geological mapping, trenching, drillingand bulk sampling.

1.2 Regulatory Requirements

The proposed prospecting activities are listed in the Environmental Management Act, 2007, (Act No. 7 of 2007) and the EIA Regulations, 2012 and cannot be undertaken without an Environmental ClearanceCertificate (ECC).

The Proponent is required to have undertaken Environmental Assessment comprising this Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) reports for the proposed minerals prospecting activities in order to support the application for ECC.

In fulfilment of the environmental requirements, the Proponent appointed Centre for Geosciences Research cc as the Environmental Consultants led by Mulife Siyambango as the Environmental Assessment Practitioner in the preparation of the EIA and EMP Reports in order to support the application for ECC.

1.3 Location, Land Use, Infrastructure and Services

1.3.1 Location and Land Use

The EPL No. 6959 is located in the Karibib District of the Erongo Region, in the west-central Namibia (Figs 1). The EPL 6959 area is located to the southwest of the Town of Usakos. The EPL 6959 area totalling 51537.0505 Ha cover parts of the following private farmlands: : 91 – Namibfotein, 92 -Vergenoeg, 93- Namib Plaas, 94-Bergrus, 62-Stinkbank and 102-Wolfkoppe.

The general topography is very rugged and comprises topographic high areas characterised by dendritic ephemeral rivers network linked to the Khan Ephemeral River and its tributaries.

The local area is extremally dry and has seen prolonged drought and therefore cannot be used for commercial farming. Local farmers are mainly involved in limited game farming coupled with conservation and eco-tourism.

The general surrounding area of Usakos and Karibib however, is mainly dominated by small scale agriculture activities, alongside mining activities and tourism.

1.3.2 Access to the licence area

Access to the Project Area is through the gravel roads D1989 and D1914 cutting across the license area and linking the EPL 6959 Area to the town of Usakos. The D1914 comes off the B2 Trans Kalahari Highway at the Town of Usakos. The B2 national highway links the project areato the capital city of Windhoek located approximately 180 km to the south east, with the deep-water port of Walvis Bay located 210 km to the south west of the EPL 6959 (Figs. 1).

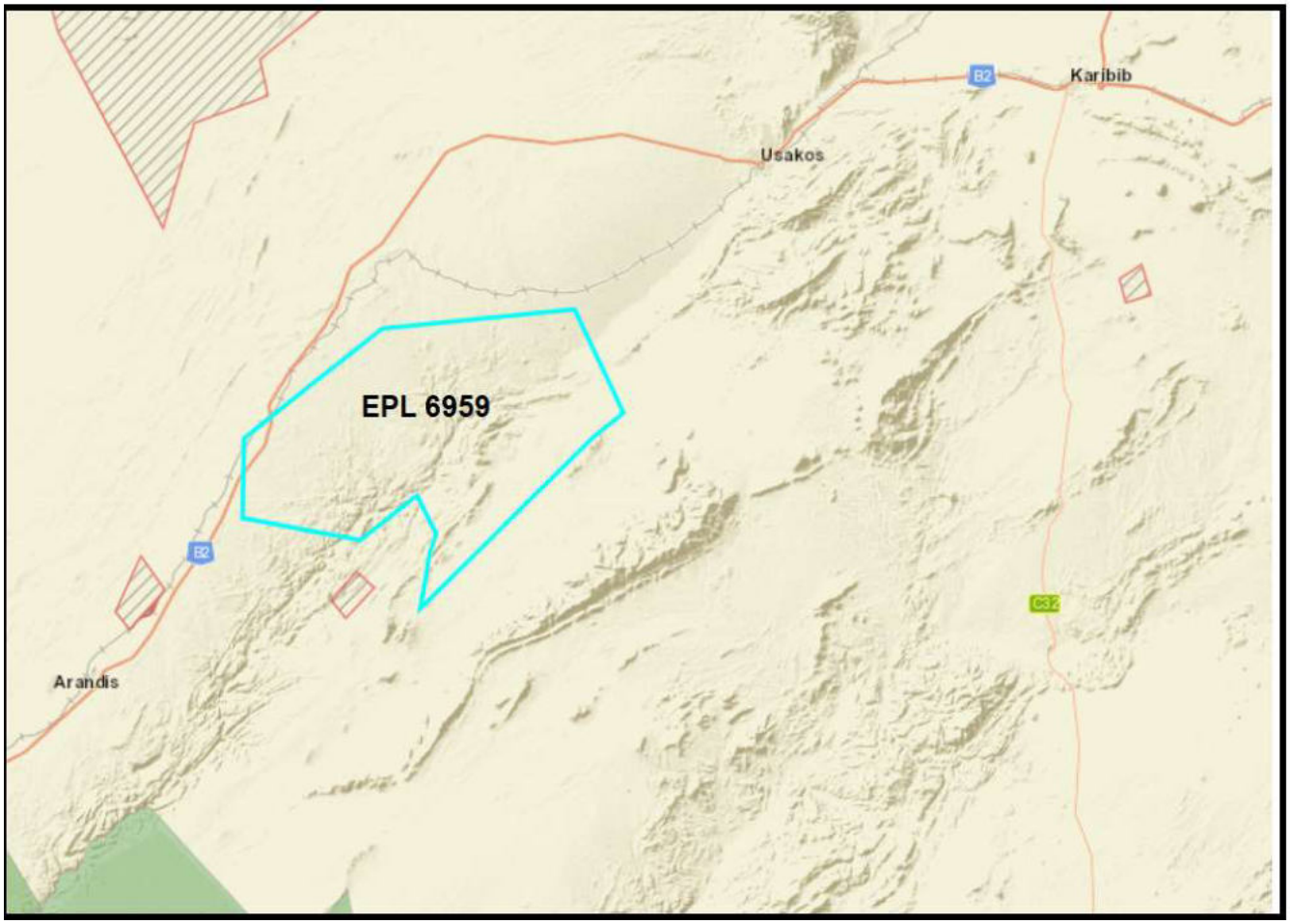


Fig 1, Map showing the locality of EPL6959 (Source: http://portals.flexicadastre.com/Namibia).

A number of minor gravel farm roads cut across the EPL area and with permission from the land ownerswill be used to access areas of interest that may be delineated within the license area. The creation of new access if really required shall be done only with permission from the land owner/s andshall be undertaken in accordance with the provisions of the EMP in terms of environmental protection. The EPL area has limited to no mobile services with no national or local water and electricity infrastructure network. However, the proposed exploration activities will not require major water and energy supplies. Sources of water supply for exploration especially drilling will be obtained from local boreholes or supplied by a water tanker truck collecting water from the Town of Usakos. Electricity supply will be provided by diesel generators and solar as may be required.

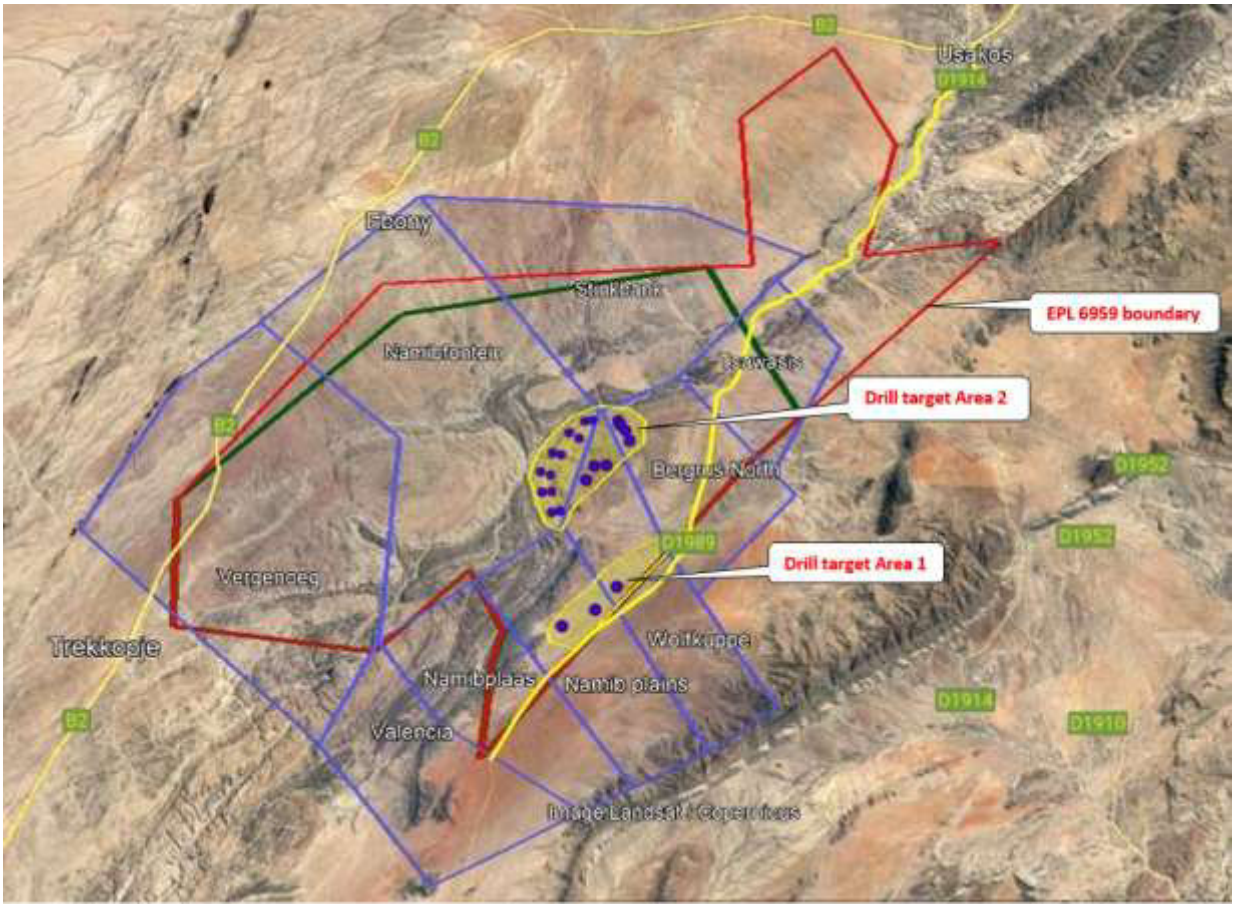


Fig 2, showing locality of the target area to be sampled and farm names covered by EPL 6959

The EPL 6959 falls within the central Damara Belt which is regarded one of the highly prospective areas for base, rare and precious metals groups associated with the Karibib Formation and other Damara rocks formations. The EPL area is located near to a number of well-established dimension stone quarries and base and rare mines including Nuclear fuels. The proposed / ongoing exploration activities has very limited socioeconomic benefits which are mainly centred around the payment of the annual license rental fees to the Central Government through the Ministry of Mines and Energy (MME) and value addition to the potential underground minerals resources in the area which otherwise would not have been known if the exploration in the EPL 6959 did not take place.

Despite the likely land use conflicts with current commercial farming and conservation activities, the discovery of mineable Nuclear Fuel reserves , the development of new mining project in the area may be linked to some positive socioeconomic benefits to the local Usakos area and Erongo region as well as Namibia as a whole in term of export earnings. During the feasibility study process opportunities for coexistence between the possiblemining operations and current commercial farming and conservation activities shall be explored in orderto identify a win-win scenarios.

1.1 Approach, Alternatives, Key Issues and Methodology

1.5.1 Terms of Reference (ToR) and Approach

Centre for Geosciences Research cc was appointed by the Proponent to prepare the EIA and EMP Reports in order to support the application for Environmental Clearance Certificate (ECC) for the EPL No. 6959 with respect to the proposed exploration activities. The EIA process reviewed the receiving environmental settings (physical, biological, socioeconomic and ecosystem services, function, use values and non-use) and proposed / ongoing exploration activities, identified the impacts and then assessed the likely impacts (positive and negative) on the receiving environment (Table 1).

The key deliverable comprised this EIA Report and a separate Environmental Management Plan (EMP)report detailing appropriate mitigation measures that will enhance the positive impacts and reduce thelikely negative impacts identified. The EIA and EMP report and the completed Application for Environmental Clearance Certificate (ECC) shall be submitted to the client (Proponent) and the Office of the Environmental Commissioner, Department of Environmental Affairs (DEA), Ministry of Environment and Tourism (MET) through the Ministry of Mines and Energy (the Competent Authority) for review and issue of the Records of Decisions (RDs).

The EIA and EMP processes have been performed with reasonable skill, care and diligence in accordance with professional standards and practices existing at the date of performance of the assessment and that the guidelines, methods and techniques that have been applied are all in conformity to the national regulatory requirements, process and specifications in Namibia as required by Ministry of Mines and Energy (MME), Ministry of Environment and Tourism (MET) and the client (Proponent). Both the EIA and EMP Reports have been prepared in line with the January 2015 MET Environmental Assessment Reporting Guideline.

Table 1.: Summary of the proposed / ongoing activities, alternatives and key issues considered during the Environmental Assessment (EA) process covering Scoping, EIA and EMP reporting.

<table>
<tr><th>PROPOSED / ONGOING PROJECT ACTIVITIES</th><th>ALTERNATIVES TO BE CONSIDERED</th><th colspan="2">KEY ISSUES ASSESSED IN THIS EIAWITH MITIGATION MEASURES PROVIDED IN THE EMP REPORT</th></tr>
<tr><td rowspan="6">(i) Initial desktop exploration activities (review of existing information and all previous activities in order identify any potential target/s)

(ii) Regional reconnaissance field-based activities such mapping and sampling to identify key targets

(iii) Initial local field-based activities such as widely spaced mapping, sampling, surveying and possible drilling in order to determine the viability of any delineated targets

(iv) Detailed local field-based activities such very detailed mapping, sampling, surveying and possible drilling in order to determine the feasibility of any delineated local target

(v) Prefeasibility and feasibility studies to be implemented on a site-specific area if the local field-based studies prove positive</td><td rowspan="6">(i) Location for Minerals Occurrence: A number of economic deposits areknown to exist in different parts of Namibia and some have been explored by different companies over theyears;

(ii) Other Alternative Land Uses: Game Farming, Tourism and Agriculture

(iii) Ecosystem Function (What the Ecosystem Does;

(iv) Ecosystem Services;

(v) Use Values;

(vi) Non-Use, or Passive Use;

(vii) The No-Action Alternative</td><td colspan="2">Potential land use conflicts / opportunities for coexistence between proposed / ongoing exploration and other existing land uses such as conservation, tourism and agriculture</td></tr>
<tr><td rowspan="3">Impacts on the Physical Environment</td><td>Natural Environment such as air, noise,water, dust etc.</td></tr>
<tr><td>Built Environment such as existing houses, roads, transport systems, Buildings,energy and water andother supporting infrastructure</td></tr>
<tr><td>Socioeconomic, archaeological andCultural impacts on thelocal societies and communities</td></tr>
<tr><td rowspan="4">Impacts on the Biological Environment</td><td>Flora</td></tr>
<tr><td>Fauna</td></tr>
<tr><td>Habitat</td></tr>
<tr><td>Ecosystem functions, services, use values and non-Use or passiveuse</td></tr>
</table>

1.5.2 Environmental Assessment Process and Steps

The EIA and EMP process used for this project took into considerations the provisions of the Environmental Impact Assessment (EIA) Regulations, 2012 and the Environmental Management Act (EMA), 2007, (Act No. 7 of 2007) as outlined in Fig. 3.1. The environmental assessment steps undertaken or still to be taken are summarised as follows:

(i) Project screening process was undertaken in November 2021;
(ii) A Draft BID / Scoping Report prepared in November 2021;
(iii) Public / stakeholders notices published in the local newspapers as well as via direct emailscommunications to key stakeholders undertake and to be undertaken between 18th Februaryand November 2021 and follow up 28th October 2022;
(iv) Final BID / Scoping Report prepared in November 2021;
(v) Prepared the Draft EIA and EMP Reports in February – November 2021;
(vi) Comments and inputs from the public and stakeholder consultations used to finalise the EIAand EMP Reports in November 2021 and updated November 2022, and;
(vii) The Final EIA and EMP reports used to support the application for Environmental Clearance Certificate (ECC) for the proposed minerals exploration activities in the EPL 6959 area. The formal application for ECC was submitted to the Environmental Commissioner through the Ministry of Mines and Energy (Competent Authority) on 16th November 2021

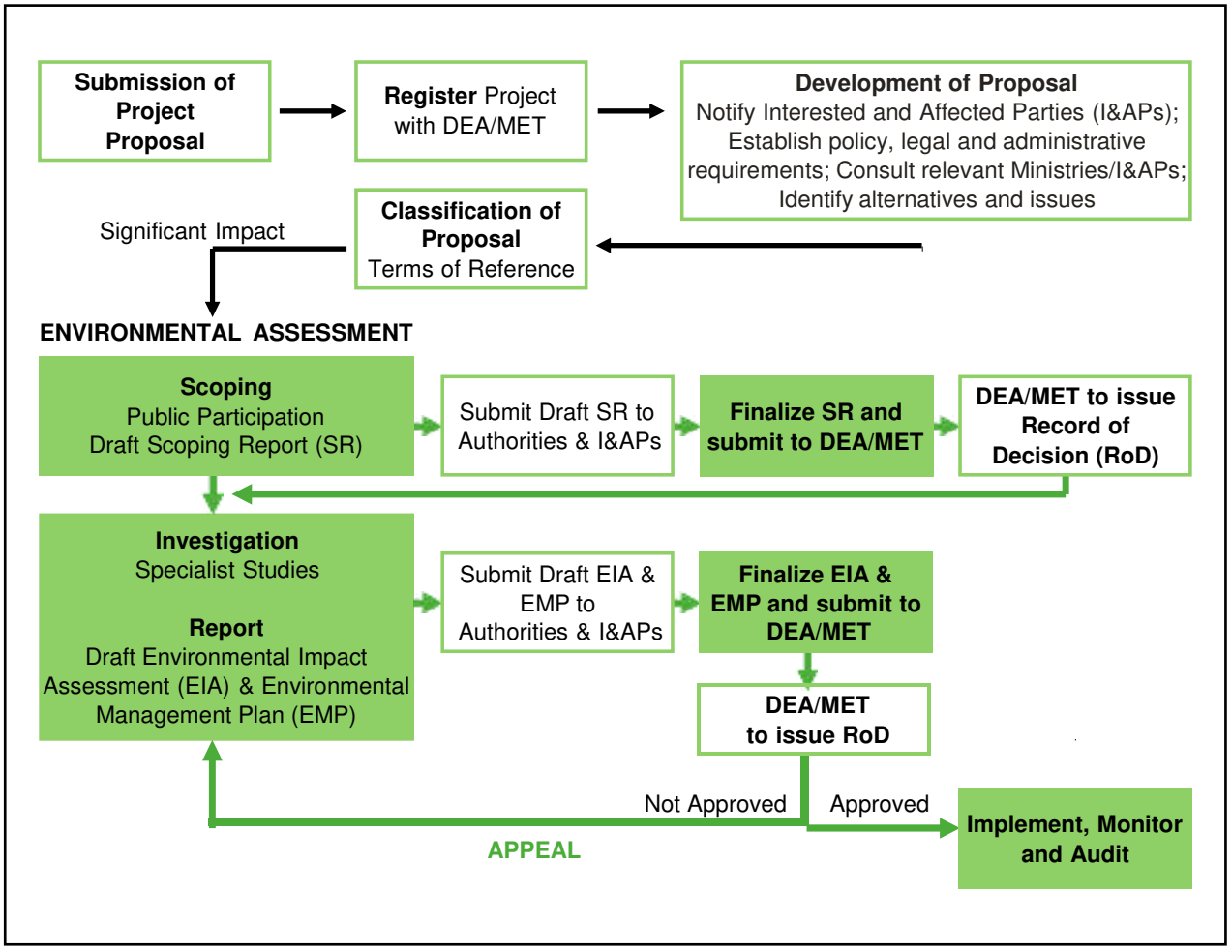


Figure 1.5: Schematic presentation of Namibia's Environmental Assessment procedure.

1.5.3 Assumptions and Limitations

The following assumptions and limitations underpin the approach adopted, overall outcomes andrecommendations for this study:

- The proposed exploration activities as well as all the plans, maps, EPL Boundary / coordinatesand appropriate data sets received from the Proponent, project partners, regulators, Competent Authorities and specialist assessments are assumed to be current and valid at the time of conducting the studies and compilation of this environmental report;

- The impact assessment outcomes, mitigation measures and recommendations provided in thisreport are valid for the entire duration of the proposed exploration / prospecting activities;

- A precautionary approach has been adopted in instances where baseline information was insufficient or unavailable or site-specific locations of the proposed project activities is not yet available, and;

- Mandatory timeframes as provided for in the Environmental Impact Assessment (EIA) Regulations No. 30 of 2012 and the Environmental Management Act, (EMA), 2007, (Act No. 7 of 2007) have been observed and will apply to the review and decision of this report by the Competent Authority and the Environmental Commissioner.

1.2 Structure of the Report

The following is the summary structure outline of this EIA report.

1. **Section 1: Background** covering the proposed / ongoing project location with available infrastructure and services;

2. **Section 2: Project Description** covering the summary of the proposed / ongoing project exploration activities;

3. **Section 3: Regulatory Framework** covering the proposed / ongoing exploration with respect to relevant legislation, regulations and permitting requirements;

4. **Section 4: Receiving Environment** covering physical, biological and socioeconomic environments of the proposed / ongoing project area;

5. **Section 5: Impact Assessment** covering the likely positive and negative impacts the proposed / ongoing project activities are likely to have on the receiving environment;

6. **Section 6: Conclusions and Recommendations**- Summary of the findings and way forward.

7. **SECTION 7: Annexes**

2. DESCRIPTION OF THE EXPLORATION

2.1 General Overview

The overall aim of the proposed / ongoing project activities (exploration / prospecting programme) is tosearch for potential economic minerals resources covering base, rare and precious metals groups within the EPL area. The exploration activities to be undertaken as assessed in this environmental assessment are as follows:

(i) Initial desktop exploration activities (no field-work undertaken);

(ii) Regional reconnaissance field-based mapping and sampling activities (Subject to the positive results of (i);

(iii) Initial local field-based mapping and sampling activities (Subject to the positive results of (i) and (ii) above),

(iv) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling (Subject to the positive results of (i) - (iii) above), and;

(v) Prefeasibility and feasibility studies (Subject to the positive results of (i) - (iv) above).

The scope of the required field-based support and logistical activities will depend on the scale of proposed exploration activities to be undertaken.

The proposed exploration activities will be supported by existing tracks and campsites / farmstead as well as existing accommodation in in the area. In the absences of existing tracks, the field team will create such new tracks with the permission of the land owner/s and depending on the scale of exploration.

In the absences of existing suitable campsite / farmstead, temporary camp will be setup at suitable locations within the EPL area in line with the EMP provisions. The size of the exploration camp will be of very limited footprints during the exploration phase but may be expanded for the test mining and mine development phases in an event of a discovery of economic minerals resources.

2.2 Initial Desktop Exploration Activities

The following is description of the proposed initial desktop exploration activities to be implemented bythe Proponent as assessed in the EIA Report:

(i) General evaluation of satellite, topographic, land tenure, accessibility, supporting infrastructures and socioeconomic environment data;

(ii) Purchase and analysis of existing Government high resolution magnetics and radiometric geophysical data;

(iii) Purchase and analysis of existing Government aerial hyperspectral, and;

(iv) Data interpretation and delineating of potential targets for future reconnaissance regional field-based activities for delineated targets.

2.3 Regional Reconnaissance Field-Based Activities

The following is detailed outline of the proposed regional reconnaissance field-based exploration activities to be implemented by the Proponent as assessed in the EIA Report:

(i) Regional geological, geochemical, topographical and remote sensing mapping and data analysis;

(ii) Regional geochemical sampling aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken;

(iii) Regional geological mapping aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken;

(iv) Limited field-based support and logistical activities lasting for a four days and;

(v) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets for future detailed site-specific exploration if the results are positive and supports further exploration of the delineated targets.

Scope and scale of the possible field work is very limited to visiting specific delineated localities in orderto validated the recommendations of the initial desktop activities.

2.4 Initial Local Field-Based Activities

The following is detailed outline of the proposed initial local field-based exploration activities to be implemented by the Proponent as assessed in the EIA Report:

(i) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during regional reconnaissance field activities;

(ii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken;

(iii) Ground geophysical survey (Subject to the positive outcomes of i and ii above);

(iv) Possible Trenching (Subject to the outcomes of i - iii above);

(v) Field-based support and logistical activities will be very limited focus on a site-specific area fora very short time (maximum five (5) days), and;

(vi) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets

Scope and scale of the possible field work is very limited working on specific delineated localities in order to assess the economic viable of the target/s.

2.5 Detailed Local Field-Based Activities

The following is detailed outline of the proposed detailed local field-based exploration activities to be implemented by the Proponent as assessed in the EIA Report if economic and viable targets are delineated within the EPL area:

(i) Access preparation and related logistics to support activities;

(ii) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineatedduring the initial field-based activities;

(iii) Local geological mapping aimed at identifying possible targeted based on the results of theregional geological and analysis undertaken, and;

(iv) Ground geophysical survey, trenching, drilling and sampling (Subject to the positive outcomesof i and ii above).

Scope and scale of the possible field work is likely to be extensive over a localised specific delineatedlocality in order to assess the economic viable of the target/s.

2.6 Prefeasibility and Feasibility Studies

The following is detailed outline of the proposed prefeasibility and feasibility studies related explorationactivities to be implemented by the Proponent as assessed in the EIA Report if economic and viable targets are delineated within the EPL area:

(i) Detailed site-specific field-based support and logistical activities, surveys, detailed geologicalmapping;

(ii) Detailed drilling and bulk sampling and testing for ore reserve calculations;

(iii) Geotechnical studies for mine design;

(iv) Mine planning and designs including all supporting infrastructures (water, energy and access)and test mining activities;

(v) EIA and EMP to support the ECC for mining operations, and;

(vi) Preparation of feasibility report and application for Mining License

Field-based support and logistical activities will be very extensive because the local field-based activities will be undertaken on a specific area for a very long time (up to one year or more in some instances). The activities will be supported by existing tracks and campsites / lodging facilities availablein the area.

3. REGULATORY FRAMEWORK

3.1 Minerals Exploration Legislation and Regulations

The Ministry of Mines and Energy (MME) is the competent authority with respect to minerals prospecting and mining activities in Namibia. The Minerals (Prospecting and Mining) Act (No 33 of 1992) is the most important legal instrument governing minerals prospecting / exploration and mining activities.

Several explicit references to the environment and its protection are contained in the Minerals Act, which provides for environmental impact assessments, rehabilitation of prospecting and mining areas and minimising or preventing pollution.

3.2 Environmental Regulations

3.2.1 Environmental Assessment Requirements and Procedures

Environmental Assessment (EA) process in Namibia is governed by the Environmental Impact Assessment (EIA) Regulations No. 30 of 2012 gazetted under the Environmental Management Act, (EMA), 2007, (Act No. 7 of 2007).

The proposed / ongoing field–based exploration activities falls within the categories of listed activities that cannot be undertaken without an Environmental Clearance.

3.2.2 Competent Authorities

The environmental regulatory authorities responsible for environmental protection and management in relation to the proposed / ongoing project including their role in regulating environmental protection are listed in Table 3.1.

Table 3.1: Government agencies regulating environmental protection in Namibia.

AGENCY	RESPONSIBILITY
Ministry of Environment and Tourism (MET)	Issue of Environmental Clearance Certificate (ECC) based on the review and approval of the Environmental Assessments (EA) reports comprising Environmental Scoping, Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) prepared in accordance with the Environmental Management Act (2007) and the Environmental Impact Assessment Regulations, 2012
Ministry of Mines and Energy (MME)	The competent authority for minerals prospecting and mining activities in Namibia. Issues Exclusive prospecting License (EPL), Mining Licenses (ML) and Mining Claims (license) as well as all other minerals related permits for processing, trading and export of minerals resources
Ministry of Agriculture, Water and Forestry (MAWF)	The Directorate of Resource Management within the Department of Water Affairs (DWA) at the MAWF is currently the lead agency responsible for management of surface and groundwater utilisation through the issuing of abstraction permits and waste water disposal permits. DWA is also the Government agency responsible for water quality monitoring and reporting. The National Botanical Research Institute's (NBRI) mandate is to study the flora and vegetation of Namibia, in order to promote the understanding, conservation and sustainable use of Namibia's plants for the benefit of all. The Directorate of Forestry (DOF) is responsible for issuing of forestry permits with respect to harvest, transport, and export or market forest resources.

3.3 Recommendations on Permitting Requirements

It is hereby recommended that the Proponent must follow the provisions of all relevant national regulatory throughout the proposed / ongoing project lifecycle and must obtain the following permits/ authorisations as maybe applicable / required as the proposed project develops:

(i) Valid Exclusive Prospecting License (EPL) as maybe applicable from Department of Minesin the Ministry of Mines and Energy (MME);

(ii) Valid Environmental Clearance Certificate (ECC) from the Department of Environmental Affairs in the Ministry of Environment and Tourism (MET);

(iii) The Proponent shall apply for a fresh water abstraction and waste water discharge permitsfrom the Department of Water Affairs (DWA) in the Ministry of Agriculture, Water and Forestry (MAWF) before drilling a water borehole and discharge wastewater into theenvironment respectively, and;

(iv) All other permits as maybe become applicable during the proposed exploration operations.

4. SUMMARY OF NATURAL ENVIRONMENT

4.1 Climate

The EPL 6959 is located in the Karibib District, Erongo Region in central Namibia with daytime warm to hot temperatures throughout the year, while the nights are mild to cool in winter. The mean annual rainfall is highly variable and may range between 200 - 300 mm in some parts of the EPL Area. The distribution of rainfall is extremely seasonal with almost all the rain falling in summer - from November to April with occasional with mean annual gross evaporation of about 3300 mm. The local project areahas the following three distinct seasons:

- A dry and relatively cool season from April to August with average daytime highs of 23°C andvirtually no rainfall during this period;

- A hot and dry season from September to December with minimal and variable rainfall falling(<20 mm per month) and average daytime highs of 30°C, which regularly exceed 40°C, and;

- A hot and rainy season from January through to March with >50 mm per month falling duringthis period (although this is extremely variable) and average high temperatures of 29°C.

The project area does not have a weather station with reliable wind records. However, based on the regional wind patterns, the prevailing wind in the area seems to be dominated by winds from the northeastern and southwest quadrants. Locally, the situation may be different dues various influences including topographic effects.

4.2 Topography

The terrain around the EPL 6959 is rocky and rugged in nature with steep slopes characterising the mountainous sections whilst the foothills of the mountains are flat and gently undulating The drainage of the area is dendritic in nature with ephemeral streams, often steeply incised, forming small early stage tributaries of the Khan Ephemeral River and a tributary of the Swakop River which one of the major ephemeral rivers of western Namibia.

4.3 Vertebrate Fauna and Flora Diversity

4.3.1 Reptiles

The high percentage of endemic reptile species (43%) associated with the rocky escarpment region ofcentral western Namibia underscores the importance of this area without formal state protection. The most important species expected to occur in the general area are viewed as the tortoise Stigmochelys pardalis; pythons – P. anchietae and P. natalensis – Varanus albigularis and some of the endemic and little-known gecko species – e.g. Pachydactylus species. Tortoises, snakes, Lizards like(agama atra- **photo 1**) and monitor lizards are routinely killed for food or as perceived threats. Other important species are those viewed as “rare” –

i.e. Rhinotyphlops lalandei, Mehelya vernayi & Afroedura africana – although very little is known aboutthese species. An important, albeit little known and understudied species occurring in the Usakos area, is the Namibian Wolf Snake (Lycophidion namibianum) (Haacke and Branch pers. com.). Indiscriminate killing of snakes is a threat to little known species. The most important habitat is the rocky outcrops.

Photo 1, Picture of a lizard species Ágama atra a family of the agamidae

4.3.2 Amphibians

Of the seven species of amphibians that potentially could occur in the general area, 2 species are endemic species (Poyntonophrynus hoeschi and Phrynomantis annectens) (Griffin 1998b) and 1 species is classified as “near threatened” (Pyxicephalus adspersus) (Du Preez and Carruthers 2009) – i.e. high level (42.9%) of amphibians of conservation value from the general area. Pyxicephalus adspersus is also more common in northern Namibia where it faces severe anthropomorphic pressure(Griffin pers. com). With the exception of these important species

and due to the fact that there is no open permanent surface water in the general area, amphibians are not viewed as very important in the dry western part of Namibia. The most important amphibian habitats are probably the ephemeral Khan and associated tributaries; fountains; farm reservoirs; ground dams and sewage work.

4.3.3 Mammals

Of the at least 88 species of mammals known and/or expected to occur in the general areas, 10 species (11.4%) as endemic while the Namibian legislation further classifies 5 species as vulnerable, 2 speciesas rare, 3 species as specially protected game, 9 species as protected game and 5 species as insufficiently known. The most important species from the general area are probably those classified as rare (e.g. Cistugo seabrai & Atelerix frontalis angolae) and vulnerable (e.g. Galago moholi, Protelescristatus, Hyaena brunnea, Acinonyx jubatus, Felis silvestris, Otocyon megalotis, Vulpes chama & Giraffa camelopardalis) under the Namibian legislation and near threatened (e.g. Eidolon helvum, Hipposideros commersoni, Hipposideros vittatus, Hyaena brunnea & Panthera pardus) and vulnerable (e.g. Acinonyx jubatus, Equus zebra hartmannae) by the IUCN (IUCN 2016). The most important habitat is the rocky outcrops and Khan River and associated tributaries habitats.

4.3.4 Avifauna

At least 216 bird species [mainly terrestrial “breeding residents”] occur and/or could occur in the general Karibib/Usakos/Omaruru areas at any time and include 12 of the 14 Namibian endemics (85.7% of all Namibian endemic species or 5.6% of all the species expected to occur in the area). The most importantendemic species known/expected to occur in the general area are viewed as Monteiro’s Hornbill (Tockus monteiri), Damara Hornbill (Tockus damarensis), Ammomanopsis grayi (Gray’s Lark), Namibornis herero (Herero Chat), Eupodotis rueppellii (Rüppell’s Korhaan) and Poicephalus rueppellii (Rüppell’s Parrot). All the birds listed as endangered, vulnerable and near threatened are also viewed as important. The most important habitat is the rocky outcrops and Khan River and associated tributaries riparian vegetation.

4.3.5 Trees and Shrubs

At least 79 to 109 larger species of trees and shrubs are known and/or expected to occur in the generalarea of which of these 5 species are classified as endemic (4.6%) and 4 species as near endemic (3.7%), 24 species (22%) protected by Forestry laws, 5 species (4.6%) protected

by the Nature Conservation Ordinance No. 4 of 1975 and 4 species (3.7%) classified as CITES Appendix II species. The most important species are viewed as Cyphostemma bainesii (endemic, Forestry#, NC), Cyphostemma currorii (Forestry#, NC), Cyphostemma juttae (endemic, Forestry#, NC), Erythrina decora (endemic, Forestry#), Heteromorpha papillosa (endemic) and Manuleopsis dinteri (endemic). These species are often associated with rocky outcrops indicating the importance of such geological features in the Usakos areas. The endemic grass – Eragrostis omahekensis – is viewed as the most important species potentially occurring in the general area. The most important habitat is the rocky outcrops, grassy plains and Khan River and associated tributaries habitats.

4.3.6 Other Flora Species

Aloes are protected throughout Namibia with 5 other aloe species, but which potentially occur in the general area, and also viewed as important are Aloe asperifolia, A. dinteri, A. hereroensis, A.namibensis and A. zebrina (Rothmann 2004).

Many endemic Commiphora species are found throughout Namibia with Steyn (2003) indicating that Commiphora crenato-serrata potentially also occurring in the general area.

Other species with commercial potential that could occur in the general area include Harpagophytum procumbens (Devil's claw) – harvested for medicinal purposes and often over-exploited – and Citrullus lanatus (Tsamma melon) which potentially has a huge economic benefit (Mendelsohn et al. 2002).

Lithops species – all protected (See Nature Conservation Ordinance No. 4 of 1975) – are also known to occur in the general area and often difficult to observe, especially during the dry season when their aboveground structures wither. At least two species of Lithops are known to occur in the Usakos area– Lithops gracilidelineata var. gracilidelineata and L. werneri – and are viewed as important (Cole and Cole 2005).

At least 64 species of ferns, of which 13 species being endemic, occur throughout Namibia. Ferns in the general area include at least 15 indigenous species (Actiniopteris radiata, Asplenium cordatum, Cheilanthes dinteri, C. eckloniana, C. marlothii, C. parviloba, Marselia aegyptiaca, M. ephippiocarpa, M. farinosa, M. macrocarpa, M. nubica, M. unicornis, M. vera,

Ophioglossum polyphyllum & Pellaea calomelanos) (Crouch et al. 2011). The general area is under collected with more species probably occurring in the general area than presented above.

The overall diversity of lichens is poorly known from Namibia, especially the coastal areas and statisticson endemicity is even sparser (Craven 1998). More than 100 species are expected to occur in the Namib Desert with the majority being uniquely related to the coastal fog belt. Lichen diversity is relatedto air humidity and generally decreases inland form the Namibian coast (Schults and Rambold 2007). Off road driving is the biggest threat to these lichens which are often rare and unique to Namibia. To indicate how poorly known lichens are from Namibia, the recent publication by Schultz et al. (2009) indicating that 37 of the 39 lichen species collected during BIOTA surveys in the early/mid 2000's wasnew to science (i.e. new species), is a case in point. The most important lichen habitats are viewed asthe Erongo Mountains; granite domes, other surrounding mountainous and rocky areas.

4.3.7 Fauna and Flora Conclusions

Species most likely to be adversely affected by the proposed exploration and possible mining operations within the EPL 6959 would be the variety of reptiles and birds specifically associated with the proposed development site(s) as well as the potential effect such development may have on carnivores as well as the protected and unique flora.

As all development have potential negative environmental consequences, identifying the most important fauna and flora species including high risk habitats beforehand, coupled with environmentally acceptable mitigating factors, lessens the overall impact of such development. The following is the summary of the most important fauna and flora (habitat) areas within the EPL area:

(i) Erongo Mountains [botanical richness and endemic vertebrates];
(ii) Granite domes and other rocky outcrops [biotic richness and endemism];
(iii) Local Ephemeral Rivers – Tributaries and the main Khan Ephemeral River network [biotic richness, large desert-dwelling mammals, high value for human subsistence and tourism].

The following is summary of the key aspect of the proposed exploration programme likely to have somenegative impacts on the receiving environment:

(i) Access routes - Localised disruption/destruction of the habitat and thus consequently fauna associated directly with the actual routes. This however, would be a relatively

small area with localised implications because the Proponent will utilise the already existing extensive access routes;

(ii) Excavation, trenching/ drilling sites - Localised disruption/destruction of the habitat and thus consequently fauna associated directly with the actual sites. This however, would be a relatively small area and will depend on scale of the operations resulting in localised implications, and;

(iii) Supporting Infrastructure including campsite - Localised disruption/destruction of the habitat and thus consequently fauna associated directly with the actual sites. This however, would be a relatively small area – especially if the existing (albeit ruins) infrastructure areas are used rather than affecting new sites – with localised implications.

4.4 Socioeconomic Setting

4.4.1 Overview

The nearest Town to the EPL 6959 is Usakos. The development of this project will have some limited socioeconomic contributions to the Town of Usakos and Karibib. There will be temporary employment created during the exploration phase. However, if there is a discovery of economic mineral resources that could led to the development of a viable mining projectin area this could create limited job opportunities and bring added local benefits and contribute to the national economy through taxes, royalty and direct investment. Workers from the project area will be staying in the Town of Usakos.

4.4.2 Agriculture

The area surrounding EPL 6959 area falls within the long established private commercial farming communities. The surrounding area is extremally dry cannot be used for commercial farming, as rainfall is not common over a number of years that is essential to sustain such commercial farming activities.

Photo 2, Showing few cattle farming at Namibfotein East farm

The carrying capacity for the general area is 10-20kg/ha (Mendelsohn et al. 2002) or 12-15LAU/ha (vander Merwe 1983) and the risk of farming is viewed as very high. Despite aridity nature of this area thereare still some small stock farmers in the general area with between 70-80% of stock farmed with beingsheep and 20-30% goats and cattle, respectively (van der Merwe 1983). The stock density is estimatedat <3sheep/km² (1.5% of total sheep in Namibia) and <1cattle/km² (1.3% of total cattle in Namibia) (vander Merwe 1983).

4.4.3 Conservation and Tourism

Despite the high aridity nature of the local area, local farmers are heavily involved in conservation initiatives linked to tourism opportunities in complimenting their commercial farming operations. The local area is extremely arid and vegetation often take a long-time to recover if disturbed.

Photo, Showing replanted gardern trees and shrubs as a way of revegetating the farm at Namibfontein East.

There are numerous existing tourism ventures in the area with the tourism potential viewed as relatively high (Mendelsohn *et al*. 2002).

The area is not well known for tourism and it does not have major tourism products such as unique natural landscapes, cultural resources or nature parks. However, local farmers are trying their best in creating tourism products and facilities all centred on environmental conservation.

4.4.4 Safety, Security and Obstructions

Current safety issues include steep slopes / gullies / valleys, excavations and minor scattered scrap metals linked to old fences. Generally, there will be a need to ensure that all employees and the general public and visitors to the EPL area are safe. The entire proposed development will not cause any obstruction to human or fauna.

4.5 Ground Components

4.5.1 Geology

The EPL 6959 falls within the Central Zone of the Damara Sequence which underlies most of Namibia.The oldest rocks within the Central Zone are the pre-Damaran basement that consists of gneiss and granite lithologies found in different parts of the zone (Miller, 1992). According to Miller, (1983a), the sequence was deposited during successive phases of rifting, spreading, subduction and continental collision. Much of the basal succession (Nosib Group), laid down in or marginal to intracontinental rifts,consists of quartzite, arkose, conglomerate, phyllite, calc-silicate, subordinate, limestone and evaporiticrocks. Local alkaline ignimbrites with associated subvolcanic intrusions ranging from 840 to 720 millionyears in age also form part of the regional geology (Miller, 1992).

According to Miller, (1992), widespread carbonate deposition followed and overlapped far beyond earlyrift shoulders (Kudis, Ugab and basal Khomas Subgroups); interbedded mica and graphitic schist, quartzite (some ferruginous), massflow deposits, iron-formation and local within-plate basic lava point to fairly variable depositional conditions south of a stable platform where only carbonates with very minor clastics occur (Otavi Group). Near the southern margin of the orogen, deep-water fans, facies equivalents of the carbonates were deposited on either side of a Southern Zone ocean separating Kalahari and Congo Cratons (Auas and Tinkas Formations). Thick schistose metagreywacke and metapelite (Kuiseb Formation) overlie the above rocks.

The lithostratigraphy of the Damara Sequence in the Central Zone (CZ) in which the EPL 6959 falls hasbeen reviewed and significantly revised by Badenhorst (1987), who has also correlated the stratigraphyacross the Omaruru Lineament. The stratigraphy of the CZ taken from Steven (1993) as slightly modified after Badenhorst, (1987) and (1988) is given in Table 4.1.

Table 4.1: Partial Lithostratigraphy of the Damara Sequence in Central Namibia (Karibib-Swakopmund Area) (Source: Venmyn Deloitte, 2014).

GROUP	SUB-GROUP	FORMATION	THICKNESS (m)	LITHOLOGICAL DESCRIPTION
Swakop	Khomas	Kuiseb	3,000	Biotite-rich quartzo-feldspathic schist, biotite-garnet-cordierite schist, minor amphibolite schist, quartzite, calc-silicate rock and marble.
		Karibib	700	Marble, biotite schist, quartz schist and calc-silicate rock.
		Chuos	700	Diamictite, pebble- and boulder-bearing schist and minor quartzite
	Discordance			
	Ugab	Rössing	200	Very variable marble, quartzite, conglomerate, biotite schist, biotite cordierite schist and gneiss, aluminous gneiss, biotite-hornblende schist and calc-silicate schist.
Unconformity or conformable transition				
Nosib		Khan	1,100	Various gneisses, quartzite, schist, conglomerate, minor marble, amphibolite and calc-silicate rock.
		Etusis	3,500	Layered light-red to greyish-brown quartzites with high feldspar content. In-between para-gneisses, biotite schists and conglomerates occur.

4.5.2 Water Sources

Groundwater as well as surface water (only during the rainy season) from ephemeral river channels isthe sources of water supply in the area as well as much of the Erongo Region. According to the Department of Water Affairs, (2001), the Erongo Region and in particular the Usakos and the EPL areagenerally has a low groundwater potential. The area with aquifer potential, more or less reflects the rainfall distribution, decreasing westwards. Knowledge of the aquifers in this area is sparse, due to thelow number of boreholes and few on groundwater. Recharge from rainfall is an important parameter determining the groundwater potential, but the degreeof metamorphism affects the groundwater potential too. The groundwater potential of rocks decreases,as the degree of metamorphism increases. Crystalline rocks normally exhibit a very low tendency to store water, typical of the pegmatite zones and the alternating bands within the banded dolomitic marbleand biotite-quartz schist found within the project area. The groundwater potential of these rock units isgenerally low, to locally moderate.

Photo, Showing water extraction windmill, and availability of drinkable ground water at Namibfontein-East.

Possible targets for water resources in this area are mainly fractured zones and faults that outcrop on the surface without impermeable infillings. But the success rate and yields for these rock types are generally low. The area along major ephemeral rivers may be more promising due to well developed fractures and faults that give rise to good recharge potential during the rainy season.

4.5.3 Evaluation of Water Vulnerability

Vulnerability assessment of surface water covered possible runoff, the presence of source factors and major flow routes such as major high order discontinuities, ephemeral river channels, valleys and gullies as pathways and the presence of surface water body as a target. The groundwaterassessments covered hydraulic properties and thickness of the unsaturated and saturated zones derived from geological and hydrogeological data. The assessment of the unsaturated characteristics was based on the ability for source factors to influence the system through known pathway factors suchas discontinuities. The combined effects of unsaturated and saturated flow probabilities were used as indicator for groundwater vulnerability. However, groundwater or surface water will only be vulnerable to contamination if the following three (3) component are all present at the same time and at a site- specific area within the EPL:

(i) Contaminant sources resulting from proposed exploration programme;

(ii) Potential pathways for contaminant migration such as major high order discontinuities (Table4.2), ephemeral river channels, valleys and gullies, and;

(iii) Targets (economic water resources) present within the project area.

Overall, the limited local groundwater resources found in the area form part of the poorly developed metamorphic rocks based confined and unconfined aquifer system that is moderately vulnerable to anysources of pollution. During the rainy season, surface water bodies can be found along the local ephemeral river system. This surface water often recharges the local groundwater resources along thefaults, solutions holes and other discontinuities along the ephemeral rivers in the general surrounding EPL area. Therefore, surface water in the local EPL area is more vulnerable to pollution sources associated with some of the proposed local field-based detailed prospecting / exploration activities suchas drilling and trenching as well as supporting activities such as campsite and discharge of liquid and solid waste. It is important that all polluting activities must not be placed or undertaken in areas with high order discontinuities, valleys or gullies systems in the area. Discharge of solid or liquid waste intoa public stream is prohibited.

4.6 Public Consultations Process

4.6.1 Overview

Public Consultations Process

Exploration of Nuclear Fuel EPL 6959

PROPONENT

Proponent:

Livelife Investments (pty) Ltd

Box 21273

Windhoek

Namibia

Email: stanrock@iway.na

EAP

Revised January 2023

Centre for Geosciences Research cc

P.O Box 31423

Pioneerspark

Email: cegeornam@gmail.com

1. Overview

Public and stakeholder consultation process was provided for in the environmental assessment processundertaken for the EPL 6959. According to the Environmental Impact Assessment (EIA) Regulations No. 30 of 2012 and the Environmental Management Act, (EMA), 2007, (Act No. 7 of 2007),a person conducting a public consultation process must give notice to all Interested and Affected Patties(I&AP) of the application which is subjected to public consultation.

The EIA Regulations clearly state that potential interested and affected parties must be provided with areasonable opportunity period to comment on the application under Section 21(6) of the EIA Regulations.

Pubic consultation process was undertaken during the month of Months November 2022 with the farmers. Inline with the provisions of the EIA Regulations, 2012 and in order to identify the key Interested and Affected Parties (I&APs), public notices were published in the following newspapers: New Era Daily Newspaper dated 19th October 2021 and 30th September 2021, the Confidente Weekly Newspaper dated 30th September to 6th October 2021, and 7th October to 12th October 2021(attachments).

During the public / stakeholder consultation period, no written comments / objections / inputs were received by Environmental Assessment Practitioner (EAP) specific for this EPL No. 6959. Below is the list of farmers that were contact for an information sharing session (Table 1)

Table 1, List of stakeholder register; farm and farm owners with emails.

FARM NAME	OWNER	CONTACTS	Email
WOLFKOPPE	Hans Kriess	0811274045 / 064 402011	info@hans-kriess.com
NAMIBPLAAS-EAST 93	Marieta Engelbrecht	0811241821 / 061 249449	mme@iway.na
NAMIBFONTEIN-EAST	Johan Breytenbach	081 838 1230	johannbrey@gmail.com
NAMIBFONTEIN-WEST	Hardy Meyer	081 247 6405	hardym@iway.na

Dr Hardy Meyer of Namibfontein-West ephasised that the exploration be carried out in terms of Act 57 (1) that gives restriction to drill in the Khan river water aquifer. As to avoid pollution to the ground water system. In general, the response was that the proponent must preserve nature and avoid damage to the fragile environment.

LIVELIFE INVESTMENTS (PTY) LTD

EPL 6959

CEGEOR

INTERESTED AND AFFECTED PARTIES REGISTRATION AND COMMENTS FORM

FOR THE

PROPOSED NUCLEAR FUELS EXPLORATION LICENCE EPL 6959, USAKOS DISTRICT ERONGO REGION

DATE	28/10/2022		
NAME	HARDUS MEYER		
POSTAL ADDRESS	P.O. Box 2394		
STREET ADDRESS	5424 Kuiseb Street		
TEL No.	—	FAX No.	
CELL No.	081 247 6405		
E-MAIL ADDRESS	hardusm@iway.na		

PLEASE IDENTIFY YOUR INTEREST IN THE PROPOSED PROJECT

Farm Namibfontein No 71 / Karibib District

PLEASE WRITE YOUR COMMENTS, CONCERNS OR QUESTIONS HERE

Use Act 52(1)

Drilling into Khan River / Water Situation

Please return completed forms to:
For more details, to register as an I&AP, or to submit comments to CEGEOR, please contact Mr [illegible]

Johan Breytenbach, Namibfontein- East specified that no extensive damage to the terrain is allowed, and that driving should be along the existing tracks.

LIVELIFE INVESTMENTS (PTY) LTD

EPL 6959

INTERESTED AND AFFECTED PARTIES REGISTRATION AND COMMENTS FORM

FOR THE

PROPOSED NUCLEAR FUELS EXPLORATION LICENCE EPL 6959 USAKOS DISTRICT ERONGO REGION

DATE	28 OCTOBER 2022	
NAME	JOHANNES JACOBUS IKEYENDAKH	
POSTAL ADDRESS	johannbrey@gmail.com NO BOX	
STREET ADDRESS	FARM: NAMIFONTEIN (91) KARIBIB DIST.	
TEL No.		FAX No.
CELL No.	081 938 1270	
E-MAIL ADDRESS		

PLEASE IDENTIFY YOUR INTEREST IN THE PROPOSED PROJECT

OWNER OF NAMIFONTEIN

PLEASE WRITE YOUR COMMENTS, CONCERNS OR QUESTIONS HERE

PRESERVE NATURE – NO EXCESSIVE TERRAIN DAMAGE

Please return completed forms to [illegible]

For more details please contact [illegible]

Email communications screening

From: Centre for Geosciences Research
Sent: Thu, 25 Nov 2021 04:56:33 +0200
To: Dr Gabi Schneider
Subject: Re: FW: EPL 6959
Attachments: Interested and Affected Parties Registration and Comments form - EPL 6959.pdf, -BID EPL 6969.pdf

Good Morning Dr Schneider

Here with attached is the registration form and the BID.

regards

On Mon, Nov 22, 2021 at 3:11 PM Dr Gabi Schneider <director@namibianuranium.org> wrote:

Thank you so much!

Namibian Uranium Association

Dr. Gabi Schneider

Executive Director

Namibian Uranium Institute

Tel: 064 402393

Fax: 064 402394

email: director@namibianuranium.org

Website: www.namibianuranium.org

From: Centre for Geosciences Research <cegeornam@gmail.com>
Sent: Monday, 22 November 2021 2:10 pm
To: Dr Gabi Schneider <director@namibianuranium.org>
Subject: Re: FW: EPL 6959

Afternoon Gabi

I just saw the mail now. My apology. I will send you the BID document today.

Regards

Mulife

On Mon, 22 Nov 2021, 14:08 Dr Gabi Schneider, <director@namibianuranium.org> wrote:

> Dear Mulife,
>
> I never got any feedback to the mail below. Kindly advise.
>
> Best regards
>
> Gabi

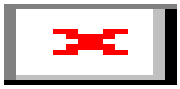
From: Dr Gabi Schneider <director@namibianuranium.org>
Sent: Thursday, 4 November 2021 10:56 am
To: 'cegeornam@gmail.com
Subject: EPL 6959

Dear Mulife,

Kindly register myself as an IAP for the EIA for EPL 6959.

Many thanks and best regards

Gabi



Dr. Gabi Schneider

Executive Director

Namibian Uranium Institute

Tel: 064 402393

Fax: 064 402394

email: director@namibianuranium.org

Website: www.namibianuranium.org

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Mulife Siyambango
MSc-IRM,MCSM,MBA,BSc
Consultant: Industrial Minerals, Geology & Environment
Centre for Geosciences Research cc

PO BOX 31423 PIONEERSPARK WINDHOEK NAMIBIA
Tel: +264 (0) 61307157 , Fax:+264 (0) 61 307156, Cell: 0856419511
e-mail: cegeornam@gmail.com

NEWSPAPERS ADVERTS

Contact: Mandy
• T: 061 24 6136 • C: 081 895 8296 • E: mandy@confidentenamibia.com

CTION AND OPERATION EAST REGION.

application will be made to ment Act (No. 7 of 2007) wing proposed activity

rm (100 to 500

velopment of a new solar s 3 600 Acres of land at ed activities will cover 400

impact Assessment and ct. Therefore notice is g the proposed project. To quest before deadline of

t 10.00 HRS Contact:

TRUCTION AND ANA.

lication will be made to t Act (No. 7 of 2007) proposed activity:

(69 Megawatts)

opment of a new solar 77 Acres of land that is

mpact Assessment and . Therefore notice is the proposed project. To uest before deadline of

14.30 HRS Contact:

CEGEOR

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

INVITATION TO COMMENT / PARTICIPATION

VICTORIA NDAHALAUMBO SHAMHE; EPL 7273 Windhoek District Khomas Region

CENTRE FOR GEOSCIENCES RESEARCH cc has been appointed to undertake an Environmental Impact Assessment (EIA) in accordance with the Namibian Environmental Management Act (2007) and it Regulations (2012).

VICTORIA NDAHALAUMBO SHAMHE; EPL 7273 Windhoek District Khomas Region is proposing to undertake exploration of Base and Rare Metals, Industrial Minerals an Precious Metals.

The exploration is being undertaken in line with the exploration programme that has been approve by the Ministry of Mines and Energy in the licence that was granted on 29th April 2019.

Interested and affected parties are encouraged to register via email in order to receive the Background Information Document (BID) to the email below within a period of fourteen days from the date of advert to the email below, and information on a possible arrangement for a Public meeting.

All comments and concerns should be submitted to **CENTRE FOR GEOSCIENCES RESEARCH.**

Please contact:

Mr Mulife Siyambango

CENTRE FOR GEOSCIENCES RESEARCH cc

P.O. Box 31423 Pioneerspark

Windhoek. Namibia. 128A Bach Street

Tel: 061-307157/ Cell: 0856419511

Email: cegeornam@gmail.com

CEGEOR

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

INVITATION TO COMMENT / PARTICIPATION

LIVELIFE INVESTMENTS (PTY) LTD; EPL 6959 Usakos District Erongo Region

CENTRE FOR GEOSCIENCES RESEARCH cc has been appointed to undertake an Environmental Impact Assessment (EIA) in accordance with the Namibian Environmental Management Act (2007) and it Regulations (2012).

LIVELIFE INVESTMENTS (PTY) LTD; EPL 6959 Usakos District Erongo Region is proposing to undertake exploration of Nuclear Fuels.

The exploration is being undertaken in line with the exploration programme that has been approve by the Ministry of Mines and Energy in the licence that was granted on 21 November 2018.

Interested and affected parties are encouraged to register via email in order to receive the Background Information Document (BID) to the email below within a period of fourteen days from the date of advert to the email below, and information on a possible arrangement for a Public meeting.

All comments and concerns should be submitted to **CENTRE FOR GEOSCIENCES RESEARCH.**

Please contact:

Mr Mulife Siyambango

CENTRE FOR GEOSCIENCES RESEARCH cc

P.O. Box 31423 Pioneerspark

Windhoek. Namibia. 128A Bach Street

Tel: 061-307157/ Cell: 0856419511

ENVIRONMENTAL IMPACT ASSESMENT FOR THE DEVELOPMENT OF HOTICULTURAL ACTIVITIES IN KARATJA C OMMUNAL AREA KAVANGO EAST REGION

Notice is hereby given to all Interested and affected parties (I&APs) that an application will be made to the **Environmental Commissioner in terms of The Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (2012)** for the following proposed activity:

PROJECT NAME: Development of Karatja Horticultural project

Project Location: KARATJA COMMUNAL AREA, DIVUNDU

Development Area size: 1000 Ha

Project Description: The proposed project development will support the development of a HOTICULTURAL project and the operation of the proposed activity. The development area covers 1000 ha of the communal land which has 1.5 m deep loam and sandy soils which are arable

Proponent: Karatja Investments cc

Consultant: Conserver Investment

CEGEOR

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

INVITATION TO COMMENT / PARTICIPATION

LIVELIFE INVESTMENTS (PTY) LTD; EPL 6959 Usakos District Erongo Region

CENTRE FOR GEOSCIENCES RESEARCH cc has been appointed to undertake an Environmental Impact Assessment (EIA) in accordance with the Namibian Environmental Management Act (2007) and it Regulations (2012).

LIVELIFE INVESTMENTS (PTY) LTD; EPL 6959 Usakos District Erongo Region is proposing to undertake exploration of Nuclear Fuels.

The exploration is being undertaken in line with the exploration programme that has been approve by the Ministry of Mines and Energy in the licence that was granted on 21 November 2016.

Interested and affected parties are encouraged to register via email in order to receive the Background Information Document (BID) to the email below within a period of fourteen days from the date of advert to the email below, and information on a possible arrangement for a Public meeting.

All comments and concerns should be submitted to **CENTRE FOR GEOSCIENCES RESEARCH.**

Please contact:

Mr Mulfe Siyambango
CENTRE FOR GEOSCIENCES RESEARCH cc
P.O. Box 31423 Pioneerspark
Windhoek, Namibia, 129A Bach Street
Tel: 061-307157/ Cell: 0856419611

mine/quarry.
Location: The project is situated approximately 20 km south-southwest (SSW) of the Town of Karibib. EPL 6118 covers farms Abbabis 70, Habis 7 and Mourepos 58/3 in Erongo Region.
Proponent: Catseye Investments CC.
Project description: Marble mining activities on ML 218 within EPL 6118.

All interested and affected parties (I&APs) are invited to register and submit comments, concerns and questions on or before **22 October 2021**.Contact details for registration and further information:
Ms. C. Kanyama
Tel: +264 813161012
Email address: cristofinak@gmail.com

CPI

NOTICE

Notice is hereby given that **Nghivelwa Planning Consultants (Town and Regional Planners)** on behalf of the owners of Erf 768, Ekuku Extension 2 and Erf 4061, Oshakati Extension16, intends applying to the **Oshakati Town Council** and the **Urban and Regional Planning Board** for the:

- **Subdivision of Erf 768, Ekuku Extension 2 into Erf A and Remainder and subsequent rezoning of proposed Erf A/768, Ekuku Extension No. 2 from "Single Residential" to "General Residential" with a density of 1:100;**

It is the intention of the owners to subdivide Erf 768, Ekuku Extension 2 into Erf A and Remainder and subsequently rezone the proposed Erf A/768 from "Single Residential" to "General Residential" with a density of '00. The proposed subdivision and rezoning will enable the owners

City of Windhoek
P.O.Box 59
Windhoek

Please note that no response be received within 21 working calendar days from the date of this letter, it will be presumed that you have no objection to the proposed building work and the building plan will be approved, provided that all other building requirements have been met. The due date for objection is 05 November 2021.

dp

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT (EIA) AND PUBLIC PARTICIPATION PROCESS FOR THE ERECTION OF A TELECOMMUNICATION BASE TRANSCEIVER STATION (BTS) AT OMATANDO IN ONGWEDIVA, OSHANA REGION-NAMIBIA.

D & P Engineers and Environmental Consultants hereby gives notice to all potential Interested and Affected Parties (I&APs), that an application for Environmental Clearance certificate will be made to the Environmental Commissioner in terms of the Environmental Management Act (No. 7 of 2007) as follows;

Proponent: PowerCom (PTY) LTD.
Environmental Assessment Practitioner: D&P Engineers and Environmental Consultants.
Project Description: The proponent intends to construct a BTS with a height of 30m, covering approximately 150m².

CLASSIFI

Tel: (061) 2080844 Fax: (061) 220584 Email: Class

Services
General

Mzilikazi Former Miners Association, Registration number 21/2018/0128, is a national association which was incorporated in the Republic of Namibia under the Companies Act, 2004 (Act No. 28 of 2004), on the 28 February 2018, as a company limited by guarantee and is incorporated under Section 21 of that Act.

Background
This association was founded as a vehicle to track down ex-miners that succumbed to tuberculosis and silicosis during their employment in South African mines as well as reaching out to their surviving families and find means of improving their welfare by assisting them in getting their social compensation benefits.

The main purpose of the association is to:
- Provide intermediation services to former South African Mine Workers in liaison with the Southern Africa Mine Workers Association (SAMA).
- To register, maintain an up to date-base and expedite the processing of South African former Mine Workers' benefits by the Southern Africa Mine Workers Association.
- To facilitate in coming up with sustainable projects for improving the welfare of the ex-miners and their surviving family members through provision of grants.

The association is more than three years old in its 16 months of operation, so much ground has been covered in advancing the interests of the former mine workers and this press release seeks to reach out to those that still do not know the existence and those of this organization.

Affiliates
- Regionally, Mzilikazi Former Miners Association is affiliated to Southern Africa Mine Workers Association (SAMA), which is also spread heading the same program at SADC level.
- In Namibia, the association is in partnership with NANASO, a non-governmental organization which is based in Windhoek and Caprivi Hope for Life, which is based in Katima Mulilo.

These two organizations fall within the armpits of Mzilikazi Former Miners Association. The two organizations are also into fighting HIV, Tuberculosis, Malaria and other related diseases.

Registration of former mine workers has already commenced in Katima Mulilo, and the names have bonna sent to South Africa for tracing.

For any information please contact
The Managing Director
Mr Thaddeus M. Kayama on +264 81 609 6861.

Employment
General

Position:
Medical Practitioner

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

Services
General

CEGEOR

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

INVITATION TO COMMENT / PARTICIPATION

LIVELIFE INVESTMENTS (PTY) LTD; EPL 6959 Usakos District Erongo Region

CENTRE FOR GEOSCIENCES RESEARCH cc has been appointed to undertake an Environmental Impact Assessment (EIA) in accordance with the Namibian Environmental Management Act (2007) and it Regulations (2012).

LIVELIFE INVESTMENTS (PTY) LTD; EPL 6959 Usakos District Erongo Region
is proposing to undertake exploration of Nuclear Fuels.

The exploration is being undertaken in line with the exploration programme that has been approve by the Ministry of Mines and Energy in the licence that was granted on 21 November 2018.

Interested and affected parties are encouraged to register via email in order to receive the Background Information Document (BID) to the email below within a period of fourteen days from the date of advert to the email below, and information on a possible arrangement for a Public meeting.

All comments and concerns should be submitted to **CENTRE FOR GEOSCIENCES RESEARCH.**
Please contact:

Mr Mulife Siyambango
CENTRE FOR GEOSCIENCES RESEARCH cc
P.O. Box 31423 Pioneerspark
Windhoek, Namibia. 128A
Bach Street
Tel: 061-307167 /

Notices
Legal Notice

REPUBLIC OF NAMIBIA
MINISTRY OF TRADE & INDUSTRY
LIQUOR ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998
(regulations 14, 26 & 33)
Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region:
OMUSATI
1. Name and postal address of applicant: **EPOSHE AUNE, PO BOX 101, OKAHAO**
2. Name of business or proposed Business to which applicant relates **AUNE GROCERY**
3. Address/Location of premises to which Application relates: **ONAMUNKOTI ONGOZI ONGANDJERA, OKAHAO CONSTITUENCY**
4. Nature and details of application: **GROCERY LIQUOR LICENCE**
5. Clerk of the court with whom Application will be lodged: **OUTAPI MAGISTRATE COURT**
6. Date on which application will be Lodged: **20 - 30 SEPTEMBER 2021**
7 Date of meeting of Committee at Which application will be heard: **10 NOVEMBER 2021**
Any objection or written submission in terms of section 28 of the Act in relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at which the application will be heard.

REPUBLIC OF NAMIBIA
MINISTRY OF TRADE & INDUSTRY
LIQUOR ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998
(regulations 14, 26 & 33)
Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region:
OHANGWENA
1. Name and postal address of applicant: **PETRUS I. HAUKONGO, PO BOX 388, OHANGWENA**
2. Name of business or proposed Business to which applicant relates **P. N. SHEBEEN**
3. Address/Location of premises to which Application relates: **ONHUNO - EKANGO**
4. Nature and details of application: **SHEBEEN LIQUOR LICENCE**
5. Clerk of the court with whom Application will be lodged: **EENHANA MAGISTRATE COURT**
6. Date on which application will be Lodged: **20 SEPTEMBER 2021**
7 Date of meeting of Committee at Which application will be heard: **10 NOVEMBER 2021**
Any objection or written submission in terms of section 28 of the Act in relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at which the application will be heard.

REPUBLIC OF NAMIBIA
MINISTRY OF TRADE & INDUSTRY
LIQUOR ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998
(regulations 14, 26 & 33)
Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region:
OSHANA
1. Name and postal address of applicant: **PAULUS N. IIPO, PO BOX 2585, ONDANGWA**
2. Name of business or proposed Business to which applicant relates **EMPINI LOUNGE**

REPUBLIC OF NAMIBIA
MINISTRY OF TRADE & INDU
LIQUOR ACT, 1998 NOTICE
APPLICATION TO A COMMITT
TERMS OF THE LIQUOR ACT,
(regulations 14, 26 & 33)
Notice is given that an applica in terms of the Liquor Act, 19 particulars of which appear be will be made to the Regional Li Licensing Committee, Regio
ZAMBEZI
1. Name and postal address applicant: **TINOLLA LEANDI COLLINS RODGERS PO BOX 5072, WINDHOE**
2. Name of business or propo Business to which applicant re **KAZILE ISLAND LODGE C**
3. Address/Location of premis which Application relates: **BWABWATA NATIONAL PA**
4. Nature and details of applica **LODGE LIQUOR LICENCE**
5. Clerk of the court with whic Application will be lodged: **KATIMA MULILO MAGISTRA COURT**
6. Date on which application wi Lodged: **11 AUGUST 2021**
7 Date of meeting of Committe Which application will be hea **13 NOVEMBER 2021**
Any objection or written submissio terms of section 28 of the Act in rela the applicant must be sent or delive the Secretary of the Committee to r the Secretary not less than 21 days the date of the meeting of the Comm which the application will be hear

REPUBLIC OF NAMIBIA
MINISTRY OF TRADE & INDUS
LIQUOR ACT, 1998 NOTICE
APPLICATION TO A COMMITTE
TERMS OF THE LIQUOR ACT,
(regulations 14, 26 & 33)
Notice is given that an applicat in terms of the Liquor Act, 199 particulars of which appear bel will be made to the Regional Li Licensing Committee, Regio
ZAMBEZI
1. Name and postal address applicant: **TINOLLA LEANDR COLLINS RODGERS PO BOX 5072, WINDHOEK**
2. Name of business or propos Business to which applicant rela **NAMBWA LODGE (PTY) LT**
3. Address/Location of premise which Application relates: **BWABWATA NATIONAL PAR**
4. Nature and details of applicat **LODGE LIQUOR LICENCE**
5. Clerk of the court with whor Application will be lodged: **KATIMA MULILO MAGISTRA COURT**
6. Date on which application wil Lodged: **11 AUGUST 2021**
7 Date of meeting of Committee Which application will be hear **13 NOVEMBER 2021**
Any objection or written submissior terms of section 28 of the Act in relati the applicant must be sent or deliver the Secretary of the Committee to re the Secretary not less than 21 days b the date of the meeting of the Commit which the application will be hear

REPUBLIC OF NAMIBIA
MINISTRY OF TRADE & INDUS
LIQUOR ACT, 1998 NOTICE C
APPLICATION TO A COMMITTE
TERMS OF THE LIQUOR ACT, 1
(regulations 14, 26 & 33)
Notice is given that an applicati in terms of the Liquor Act, 199 particulars of which appear belo will be made to the Regional Liq Licensing Committee, Region:
OSHIKOTO
1. Name and postal address o applicant: **ABED T. SHOMEY PO BOX 10037, OLUNO**
2. Name of business or propose

CLASSIFI

Tel: (061) 2080844 Fax: (061) 220584 Email: Class

Property

For Sale

Twahafa Real Estate

PROPERTIES SALE

SOWETO:
2 bedroom flat,beautiful kitchen, lounge, own yard
N$ 749 000

OTJOMUISE:
2 bedroom flat, lounge, kitchen, bathroom.
N$649 000

WALVISBAY:
2 bedroom house with 2 bathrooms, lounge, kitchen and Garage. Has 2 bedrooms flat and Bachelor flat.
N$ 1180 000 incl cost

Cost included in above.

WINDHOEK NORTH
2 bedroom flat , full bathroom, courtyard
N$ 860 000

KLEIN WINDHOEK
1 bedroom flat ,lounge, full bathroom, beautiful kitchen, 2 aircorns
N$ 830 000

Sole mandate specialist
0816534437
info@twahafagroup.com
www.twahafagroup.com

Employment

Gobabis Gymnasium Private School

VACANCY - TEACHER

Candidates who meet the following requirements can apply:

- 4 Year B.Ed. Degree
- Major subjects:
  - English First Language (Must be able to teach up to Grade 12)
  - Mathematics - Precalculus or Calculus (Must be able to teach Gr. 4 – 12)
- Qualified to teach children with remedial and special needs
- At least 5 years' experience

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REPUBLIC OF NAMIBIA
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Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region:
OTJOZONDJUPA

1. Name and postal address of applicant:
SAMUEL PANDULENI MBANGO PO BOX 953, OTJIWARONGO
2. Name of business or proposed Business to which applicant relates:
CABRITO
3. Address/Location of premises to which Application relates:
ERF 1141, ORWETOVENI OTJIWARONGO
4. Nature and details of application:
RESTAURANT LIQUOR LICENCE
5. Clerk of the court with whom Application will be lodged:
OTJIWARONGO MAGISTRATE COURT
6. Date on which application will be Lodged:
29 SEPTEMBER 2021
7 Date of meeting of Committee at Which application will be heard:
10 NOVEMBER 2021

Any objection or written submission in terms of section 28 of the Act in relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at which the application will be heard.

REPUBLIC OF NAMIBIA
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Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region:
ZAMBEZI

1. Name and postal address of applicant:
SIMASIKU CLEMENT SIMASIKU PO BOX 316, KATIMA MULILO
2. Name of business or proposed Business to which applicant relates:
KANTWINTWINTWI INVESTMENT CORPORATION
3. Address/Location of premises to which Application relates:
LUSESE
4. Nature and details of application:
SHEBEEN LIQUOR LICENCE
5. Clerk of the court with whom Application will be lodged:
KATIMA MULILO MAGISTRATE COURT
6. Date on which application will be Lodged:
11 AUGUST 2021
7 Date of meeting of Committee at Which application will be heard:
13 OCTOBER 2021

Any objection or written submission in terms of section 28 of the Act in relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at which the application will be heard.

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Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region:
OMUSATI

Notices

Legal Notice

NOTICE

Notice is hereby given that **Nghivelwa Planning Consultants (Town and Regional Planners)** on behalf of the owners of Erf 768, Ekuku Extension 2 and Erf 4061, Oshakati Extension16, intends applying to the **Oshakati Town Council and the Urban and Regional Planning Board** for the:

•Subdivision of Erf 768, Ekuku Extension 2 into Erf A and Remainder and subsequent rezoning of proposed Erf A/768, Ekuku Extension No. 2 from "Single Residential" to "General Residential" with a density of 1:100;

It is the intention of the owners to subdivide Erf 768, Ekuku Extension 2 into Erf A and Remainder and subsequently rezone the proposed Erf A/768 from "Single Residential" to "General Residential" with a density of 1:100. The proposed subdivision and rezoning will enable the owners to construct flats on the property.

•Subdivision of Erf 4061, Oshakati Extension 16 into Erf A, B and Remainder;

It is the intention of the owners to subdivide Erf 4061, Oshakati Extension 16 into Erf A, B and Remainder. The proposed subdivision will enable the owners to construct a single residential property on each of the new proposed erven.

Further take notice that the plans of the erven lie for inspection on the town planning notice board of the Oshakati Town Council: 1st floor, Civic Center, Sam

Notices

Legal Notice

CEGEOR

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

INVITATION TO COMMENT / PARTICIPATION

LIVELIFE INVESTMENTS (PTY) LTD; EPL 6959 Usakos District Erongo Region

CENTRE FOR GEOSCIENCES RESEARCH cc has been appointed to undertake an Environmental Impact Assessment (EIA) in accordance with the Namibian Environmental Management Act (2007) and it Regulations (2012).

LIVELIFE INVESTMENTS (PTY) LTD; EPL 6959 Usakos District Erongo Region is proposing to undertake exploration of Nuclear Fuels.

The exploration is being undertaken in line with the exploration programme that has been approve by the Ministry of Mines and Energy in the licence that was granted on 21 November 2018.

Interested and affected parties are encouraged to register via email in order to receive the Background Information Document (BID) to the email below within a period of fourteen days from the date of advert to the email below, and information on a possible arrangement for a Public meeting.

All comments and concerns should be submitted to **CENTRE FOR GEOSCIENCES RESEARCH.**
Please contact:

Mr Mulife Siyambango
CENTRE FOR GEOSCIENCES RESEARCH cc
P.O. Box 31423 Pioneerspark Windhoek. Namibia. 128A Bach Street
Tel: 061-307157 / Cell: 0856419511

Notices

Legal Notice

ENVIRONMENTA IMPACT ASSESSM FOR THE DEVELOPMENT HOTICULTURA ACTIVITIES IN KARATJA COMMU AREA KAVANGO E REGION

Notice is hereby giv all Interested and af parties (I&APs) th application will be to the Environm Commissioner in of **The Environm Management Act (N 2007) and Environn Impact Assess Regulations (2012)** following proposed a

PROJECT NAM
Development of Ka Horticultural proj

Project Locatio
KARATJA COMMU AREA, DIVUND

Development Area
1000 Ha

Project Description
The proposed p development will s the development HOTICULTURAL p and the operation proposed activity development area **1000** ha of the con land which has 1.5 r loam and sandy soils are arable

Proponent: Karatja Investments cc

Consultant:
Conserver Invest Cc Environmen Consultancy

The consultan appointed by K Investments cc to c

5. IMPACT ASSESSMENT AND RESULTS

5.1 Key Issues Considered in the Assessment Process

5.3.1 Sources of Impacts (Proposed / Ongoing Project Activities)

The ongoing exploration activities being undertaken in the EPL 6959 and as assessed in this EIAReport with mitigation measures provided in the EMP Report are as follows:

(i) Initial desktop exploration activities (no field-work undertaken);

(ii) Regional reconnaissance field-based mapping and sampling activities;

(iii) Initial local field-based mapping and sampling activities;

(iv) Detailed local field-based activities such as local geological mapping, geochemical mappingand sampling, trenching and drilling of closely spaced boreholes and bulk sampling, and;

(v) Prefeasibility and feasibility studies leading to test mining and mining if proves positive.

5.3.2 Summary of Receptors Likely to be Negative Impacted

Based on the finding of this EIA Report, the following is the summary of the key environmental receptors that are may be negatively impacted by the proposed activities:

- **Physical environment:** Water quality, physical infrastructure and resources, air quality, noiseand dust, landscape and topography, soil quality and, Climate change influences;

- **Biological environment:** Habitat, protected areas and resources, flora, fauna, and ecosystemfunctions, services, use values and non-use or passive use, and;

- **Socioeconomic, cultural and archaeological environment:** Local, regional and

national socioeconomic settings, agriculture, conservation, eco-tourism and recreation cultural, biological and archaeological resources.

5.2 Impact Assessment Methodology

5.4.1 Impact Definition

In this EIA Report, a natural and/or human environmental impact is defined as: “Change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation’s environmental aspect.

All proposed project activities (routine and non-routine) were considered during the Scoping, EIA andEMP Phases in terms of their potential to:

- Interact with the existing environment (physical, biological and social elements), and;

- Breach relevant national legislation, relevant international legislation, standards and guidelines,and corporate environmental policy and management systems.

Where a project activity and receptor were considered to have the potential to interact, the impact hasbeen defined and ranked according to its significance. Table 5.1 provides the definition of different categories of impacts identified and used in this report. This EIA Report has assessed the potential impacts resulting from routine Project activities, assumingthat the Project activities that may cause an impact that will occur but the impact itself will be dependent on the likelihood (Probability) (Table 5.2). Correct control measures through the implementation of the EMP and monitoring thereof, often reduce any negative significant impacts on the receiving environment as the results of the project activities. The assessment therefore, has focused on the measures aimed at preventing the occurrence of an impact as well as mitigation measures that may be employed.

Table 5.1: Definition of impact categories used in this report.

Nature of Impact	Adverse	Considered to represent an adverse change from the baseline, or to introduce a new undesirable factor.
	Beneficial	Considered to represent an improvement to the baseline or to introduce a new desirable factor.
Type of Impact	Direct	Results from a direct interaction between a planned or unplanned Project activity and the receiving environment.
	Indirect	Results from the Project but at a later time or at a removed distance or which may occur as a secondary effect of a direct impact.
	Cumulative	Results from (i) interactions between separate Project-related residual impacts; and (ii) interactions between Project-related residual impacts in combination with impacts from other projects and their associated activities. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.
Duration of Impact	Short-term	Predicted to last only for a limited period but will cease on completion of the activity, or as a result of mitigation/reinstatement measures and natural recovery typically within a year of the project completion.
	Medium-	Predicted to last only for a medium period after the Project finishing, typically one to five years.
	Long-term	Continues over an extended period, typically more than five years after the Project's completion.
	Permanent	Occurs during the development of the Project and causes a permanent change in the affected receptor or resource that endures substantially beyond the Project lifetime.
Scale of Impact	Local	Affects locally important environmental resources or is restricted to a single habitat/biotope, a single community.
	Regional	Affects nationally important environmental resources, or an area that is nationally important/protected or has macro-economic consequences.
	National	Affects nationally important environmental resources, or an area that is nationally important/protected or has macro-economic consequences.
	International	Affects internationally important resources such as areas protected by international Conventions
	Transboundary	Impacts experienced in one country as a result of activities in another.
Probability	Negligible	Possibility negligible
	Improbable	Possibility very low
	Probable	Distinct possibility
	Highly Probable	Most likely
	Definite	Impact will occur regardless of preventive measures

The overall impact severity has been categorised using a semi-quantitative subjective scale as shownin Table 5.2 for sensitivity of receptors, Table 5.3 for magnitude, Table 5.4 for duration, Table 5.5 forextent and Table 5.6 showing probability.

Table 5.2: Definitions used for determining the sensitivity of receptors.

SENSITIVITY RATING		CRITERIA
1	**Negligible**	The receptor or resource is resistant to change or is of little environmental value.
2	**Low**	The receptor or resource is tolerant of change without detriment to its character,is of low environmental or social value, or is of local importance.
3	**Medium**	The receptor or resource has low capacity to absorb change without fundamentallyaltering its present character, is of high environmental or social value, or is of national importance
4	**High**	The receptor or resource has moderate capacity to absorb change without significantly altering its present character, has some environmental or socialvalue, or is of district/regional importance.
5	**Very High**	The receptor or resource has little or no capacity to absorb change without fundamentally altering its present character, is of very high environmental orsocial value, or is of international importance.

Table 5.3: Scored on a scale from 0 to 5 for impact magnitude.

SCALE (-) or (+)		DESCRIPTION
0		no observable effect
1		low effect
2		tolerable effect
3		medium high effect
4		high effect
5		very high effect (devastation)

Table 5.4: Scored time period (duration) over which the impact is expected to last.

SCALE (-) or (+)		DESCRIPTION
T		Temporary
P		Permanent

Table 5.5: Scored geographical extent of the induced change.

SCALE (-) or (+)		DESCRIPTION
L		limited impact on location
O		impact of importance for municipality;
R		impact of regional character
N		impact of national character
M		impact of cross-border character

5.4.3 Likelihood (Probability) of Occurrence

The likelihood (probability) of the pre-identified events occurring has been ascribed using a qualitativescale of probability categories (in increasing order of likelihood) as shown in Table 5.6. Likelihood is estimated on the basis of experience and/ or evidence that such an outcome has previously occurred. Impacts resulting from routine/planned events (i.e., normal operations) are classified under category(E).

Table 5.6: Summary of the qualitative scale of probability categories (in increasing order of likelihood).

SCALE (-) or (+)		DESCRIPTION
A		Extremely unlikely (e.g. never heard of in the industry)
B		Unlikely (e.g. heard of in the industry but considered unlikely)
C		Low likelihood (egg such incidents/impacts have occurred but are uncommon)
D		Medium likelihood (e.g. such incidents/impacts occur several times per year within the industry)
E		High likelihood (e.g. such incidents/impacts occurs several times per year at each location where such works are undertaken)

5.4.4 Project Activities Summary of Impacts Results

Assessment results of the magnitude, duration, extent and probability of the potential impacts due to the proposed / ongoing project activities interacting with the receiving environment are presented in form of a matrix table as shown in Tables 5.7-5.10. The overall severity of potential environmental impacts of the proposed / ongoing project activities on the receiving environment will be of low magnitude (Table 5.7), temporally duration (Table 5.8), localised extent (Table 5.9) and low probability of occurrence (Table 5.10) due to the limited scope of the proposed activities and the use of step progression approach in advancing exploration.

The step progressional approach will allow the Proponent to the results of exploration success and theimplementation of the next stage of exploration will be subject to the positive outcomes of previous activities as graded (Tables 5.7-5.10). It is important to note that the assessment of the likely impacts as shown in Tables 5.7 - 5.10, have been considered without the implementation of mitigation measures detailed in the EMP Report.

The need for implementation of the appropriate mitigation measures as presented in the EMP Reporthave be determined on the results of the impact assessment (Tables 5.7 - 5.10) and the significant impacts as detailed in Tables 5.11 and 5.12.

Table 5.7: Results of the sensitivity assessment of the receptors (Physical, Socioeconomic and Biological environments) with respect to the proposed exploration / prospecting activities.

RECEPTOR SENSITIVITY		PHYSICAL ENVIRONMENT						BIOLOGICAL ENVIRONMENT					SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT				
		Water Quality	Physical infrastructure and Resources	Air Quality, Noise and Dust	Landscape Topography	Soil Quality	Climate Change Influences	Habitat	Protected Areas	Flora	Fauna	Ecosystem functions, services, use values and non-Use or passive use	Local, regional and national socioeconomic settings	Commercial Agriculture	Community Protected Areas	Tourism and Recreation	Cultural, Biological and Archaeological Resources
1. Initial Desktop Exploration Activities	(i) General evaluation of satellite, topographic, land tenure, accessibility, supporting infrastructures and socioeconomic environment data	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(ii) Purchase and analysis of existing Government high resolution magnetics and radiometric geophysical data	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(iii) Purchase and analysis of existing Government aerial hyperspectral	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(iv) Data interpretation and delineating of potential targets for future reconnaissance regional field-based activities for delineated targets	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2. Field- Based Activities	(i) Regional geological, geochemical, topographical and remote sensing mapping and data analysis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(ii) Regional geochemical sampling aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(iii) Regional geological mapping aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(iv) Limited field-based support and logistical activities including exploration camp site lasting between one (1) to two (2) days	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(v) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets for future detailed site-specific exploration if the results are positive and supports further exploration of the delineated targets	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

SENSITIVITY RATING		CRITERIA
1	Negligible	The receptor or resource is resistant to change or is of little environmental value.
2	Low	The receptor or resource is tolerant of change without detriment to its character, is of low environmental or social value, or is of local importance.
3	Medium	The receptor or resource has low capacity to absorb change without fundamentally altering its present character, is of high environmental or social value, or is of national importance
4	High	The receptor or resource has moderate capacity to absorb change without significantly altering its present character, has some environmental or social value, or is of district/regional importance.
5	Very High	The receptor or resource has little or no capacity to absorb change without fundamentally altering its present character, is of very high environmental or social value, or is of international importance.

Table 5.7: Cont.

RECEPTOR SENSITIVITY		PHYSICAL ENVIRONMENT						BIOLOGICAL ENVIRONMENT					SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT				
		Water Quality	Physical infrastructure and Resources	Air Quality, Noise and Dust	Landscape Topography	Soil Quality	Climate Change Influences	Habitat	Protected Areas	Flora	Fauna	Ecosystem functions, services, use values and non-Use or passive use	Local, regional and national socioeconomic settings	Commercial Agriculture	Community Protected Areas	Tourism and Recreation	Cultural, Biological and Archaeological Resources
3. Initial Local Field-Based Activities	(i) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during regional reconnaissance field activities	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	(ii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	(iii) Ground geophysical survey (Subject to the positive outcomes of i and ii above)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	(iv) Possible Trenching (Subject to the outcomes of i - iii above)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	(v) Field-based support and logistical activities will be very limited focus on a site-specific area for a very short time (maximum five (5) days)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	(vi) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4. Detailed Local Field-Based Activities	(i) Access preparation and related logistics to support activities	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	(ii) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during the initial field-based activities	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	(iii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	(iv) Ground geophysical survey, trenching, drilling and sampling (Subject to the positive outcomes of i and ii above);	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
5. Prefeasibility and Feasibility Studies	(i) Detailed site-specific field-based support and logistical activities, surveys, detailed geological mapping	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	(ii) Detailed drilling and bulk sampling and testing for ore reserve calculations	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	(iii) Geotechnical studies for mine design	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	(iv) Mine planning and designs including all supporting infrastructures (water, energy and access) and test mining activities	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(v) EIA and EMP to support the ECC for mining operations	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(vi) Preparation of feasibility report and application for Mining License	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

SENSITIVITY RATING		CRITERIA
1	Negligible	The receptor or resource is resistant to change or is of little environmental value.
2	Low	The receptor or resource is tolerant of change without detriment to its character, is of low environmental or social value, or is of local importance.
3	Medium	The receptor or resource has low capacity to absorb change without fundamentally altering its present character, is of high environmental or social value, or is of national importance
4	High	The receptor or resource has moderate capacity to absorb change without significantly altering its present character, has some environmental or social value, or is of district/regional importance.
5	Very High	The receptor or resource has little or no capacity to absorb change without fundamentally altering its present character, is of very high environmental or social value, or is of international importance.

Table 5.8: Results of the scored time period (duration) over which the impact is expected to last.

RECEPTOR SENSITIVITY		PHYSICAL ENVIRONMENT						BIOLOGICAL ENVIRONMENT					SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT				
SCALE / DESCRIPTION: T = Temporary; P = Permanent		Water Quality	Physical infrastructure and Resources	Air Quality, Noise and Dust	Landscape Topography	Soil Quality	Climate Change Influences	Habitat	Protected Areas	Flora	Fauna	Ecosystem functions, services, use values and non-Use or passive use	Local, regional and national socioeconomic settings	Commercial Agriculture	Community Protected Areas	Tourism and Recreation	Cultural, Biological and Archaeological Resources
1. Initial Desktop Exploration Activities	(i) General evaluation of satellite, topographic, land tenure, accessibility, supporting infrastructures and socioeconomic environment data	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(ii) Purchase and analysis of existing Government high resolution magnetics and radiometric geophysical data	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(iii) Purchase and analysis of existing Government aerial hyperspectral	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(iv) Data interpretation and delineating of potential targets for future reconnaissance regional field-based activities for delineated targets	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
2. Regional Reconnaissance Field-Based Activities	(i) Regional geological, geochemical, topographical and remote sensing mapping and data analysis	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(ii) Regional geochemical sampling aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(iii) Regional geological mapping aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(iv) Limited field-based support and logistical activities including exploration camp site lasting between one (1) to two (2) days	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(v) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets for future detailed site-specific exploration if the results are positive and supports further exploration of the delineated targets	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T

Table 5.8: *Cont.*

DURATION OF IMPACT		PHYSICAL ENVIRONMENT						BIOLOGICAL ENVIRONMENT					SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT				
SCALE / DESCRIPTION: T = Temporary; P = Permanent		Water Quality	Physical infrastructure and Resources	Air Quality, Noise and Dust	Landscape Topography	Soil Quality	Climate Change Influences	Habitat	Protected Areas	Flora	Fauna	Ecosystem functions, services, use values and non-Use or passive use	Local, regional and national socioeconomic settings	Commercial Agriculture	Community Protected Areas	Tourism and Recreation	Cultural, Biological and Archaeological Resources
3. Initial Local Field-Based Activities	(i) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during regional reconnaissance field activities	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(ii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(iii) Ground geophysical survey (Subject to the positive outcomes of i and ii above)	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(iv) Possible Trenching (Subject to the outcomes of i - iii above)	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(v) Field-based support and logistical activities will be very limited focus on a site-specific area for a very short time (maximum five (5) days)	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(vi) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
4. Detailed Local Field-Based Activities	(i) Access preparation and related logistics to support activities	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(ii) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during the initial field-based activities	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(iii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(iv) Ground geophysical survey, trenching, drilling and sampling (Subject to the positive outcomes of i and ii above);	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
5. Prefeasibility and Feasibility Studies	(i) Detailed site-specific field-based support and logistical activities, surveys, detailed geological mapping	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(ii) Detailed drilling and bulk sampling and testing for ore reserve calculations	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(iii) Geotechnical studies for mine design	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(iv) Mine planning and designs including all supporting infrastructures (water, energy and access) and test mining activities	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(v) EIA and EMP to support the ECC for mining operations	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	(vi) Preparation of feasibility report and application for Mining License	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T

Table 5.9: Results of the scored geographical extent of the induced change.

GEOGRAPHICAL EXTENT OF IMPACT		PHYSICAL ENVIRONMENT						BIOLOGICAL ENVIRONMENT					SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT				
		Water Quality	Physical infrastructure and Resources	Air Quality, Noise and Dust	Landscape Topography	Soil Quality	Climate Change Influences	Habitat	Protected Areas	Flora	Fauna	Ecosystem functions, services, use values and non-Use or passive use	Local, regional and national socioeconomic settings	Commercial Agriculture	Community Protected Areas	Tourism and Recreation	Cultural, Biological and Archaeological Resources
1. Initial Desktop Exploration Activities	(i) General evaluation of satellite, topographic, land tenure, accessibility, supporting infrastructures and socioeconomic environment data	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(ii) Purchase and analysis of existing Government high resolution magnetics and radiometric geophysical data	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(iii) Purchase and analysis of existing Government aerial hyperspectral	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(iv) Data interpretation and delineating of potential targets for future reconnaissance regional field-based activities for delineated targets	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
2. Field- Based Activities	(i) Regional geological, geochemical, topographical and remote sensing mapping and data analysis	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(ii) Regional geochemical sampling aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(iii) Regional geological mapping aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(iv) Limited field-based support and logistical activities including exploration camp site lasting between one (1) to two (2) days	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(v) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets for future detailed site-specific exploration if the results are positive and supports further exploration of the delineated targets	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L

SCALE		DESCRIPTION
L		limited impact on location
O		impact of importance for municipality
R		impact of regional character
N		impact of national character
M		impact of cross-border character

Table 5.9: *Conti.*

GEOGRAPHICAL EXTENT OF IMPACT		PHYSICAL ENVIRONMENT						BIOLOGICAL ENVIRONMENT					SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT				
SCALE	DESCRIPTION	Water Quality	Physical infrastructure and Resources	Air Quality, Noise and Dust	Landscape Topography	Soil Quality	Climate Change Influences	Habitat	Protected Areas	Flora	Fauna	Ecosystem functions, services, use values and non-Use or passive use	Local, regional and national socioeconomic settings	Commercial Agriculture	Community Protected Areas	Tourism and Recreation	Cultural, Biological and Archaeological Resources
L	limited impact on location																
O	impact of importance for municipality																
R	impact of regional character																
N	impact of national character																
M	impact of cross-border character																
3. Initial Local Field-Based Activities	(i) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during regional reconnaissance field activities	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(ii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(iii) Ground geophysical survey (Subject to the positive outcomes of i and ii above)	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(iv) Possible Trenching (Subject to the outcomes of i - iii above)	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(v) Field-based support and logistical activities will be very limited focus on a site-specific area for a very short time (maximum five (5) days)	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(vi) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
4. Detailed Local Field-Based Activities	(i) Access preparation and related logistics to support activities	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(ii) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during the initial field-based activities	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(iii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(iv) Ground geophysical survey, trenching, drilling and sampling (Subject to the positive outcomes of i and ii above);	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
5. Prefeasibility and Feasibility Studies	(i) Detailed site-specific field-based support and logistical activities, surveys, detailed geological mapping	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(ii) Detailed drilling and bulk sampling and testing for ore reserve calculations	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(iii) Geotechnical studies for mine design	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(iv) Mine planning and designs including all supporting infrastructures (water, energy and access) and test mining activities	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(v) EIA and EMP to support the ECC for mining operations	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	(vi) Preparation of feasibility report and application for Mining License	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L

Table 5.10: Results of the qualitative scale of probability occurrence.

IMPACT PROBABILITY OCCURRENCE		PHYSICAL ENVIRONMENT						BIOLOGICAL ENVIRONMENT					SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT				
		Water Quality	Physical infrastructure and Resources	Air Quality, Noise and Dust	Landscape Topography	Soil Quality	Climate Change Influences	Habitat	Protected Areas	Flora	Fauna	Ecosystem functions, services, use values and non-Use or passive use	Local, regional and national socioeconomic settings	Commercial Agriculture	Community Protected Areas	Tourism and Recreation	Cultural, Biological and Archaeological Resources
1. Initial Desktop Exploration Activities	(i) General evaluation of satellite, topographic, land tenure, accessibility, supporting infrastructures and socioeconomic environment data	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	(ii) Purchase and analysis of existing Government high resolution magnetics and radiometric geophysical data	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	(iii) Purchase and analysis of existing Government aerial hyperspectral	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	(iv) Data interpretation and delineating of potential targets for future reconnaissance regional field-based activities for delineated targets	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
2. Field- Based Activities	(i) Regional geological, geochemical, topographical and remote sensing mapping and data analysis	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	(ii) Regional geochemical sampling aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	(iii) Regional geological mapping aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	(iv) Limited field-based support and logistical activities including exploration camp site lasting between one (1) to two (2) days	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	(v) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets for future detailed site-specific exploration if the results are positive and supports further exploration of the delineated targets	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

SCALE		DESCRIPTION
A		Extremely unlikely (e.g. never heard of in the industry)
B		Unlikely (e.g. heard of in the industry but considered unlikely)
C		Low likelihood (egg such incidents/impacts have occurred but are uncommon)
D		Medium likelihood (e.g. such incidents/impacts occur several times per year within the industry)
E		High likelihood (e.g. such incidents/impacts occurs several times per year at each location where such works are undertaken)

Table 5.10: *Cont.*

IMPACT PROBABILITY OCCURRENCE		PHYSICAL ENVIRONMENT						BIOLOGICAL ENVIRONMENT					SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT				
		Water Quality	Physical infrastructure and Resources	Air Quality, Noise and Dust	Landscape Topography	Soil Quality	Climate Change Influences	Habitat	Protected Areas	Flora	Fauna	Ecosystem functions, services, use values and non-Use or passive use	Local, regional and national socioeconomic settings	Commercial Agriculture	Community Protected Areas	Tourism and Recreation	Cultural, Biological and Archaeological Resources
3. Initial Local Field-Based Activities	(i) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during regional reconnaissance field activities	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	(ii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	(iii) Ground geophysical survey (Subject to the positive outcomes of i and ii above)	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	(iv) Possible Trenching (Subject to the outcomes of i - iii above)	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	(v) Field-based support and logistical activities will be very limited focus on a site-specific area for a very short time (maximum five (5) days)	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	(vi) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
4. Detailed Local Field-Based Activities	(i) Access preparation and related logistics to support activities	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	(ii) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during the initial field-based activities	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	(iii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	(iv) Ground geophysical survey, trenching, drilling and sampling (Subject to the positive outcomes of i and ii above);	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
5. Prefeasibility and Feasibility Studies	(i) Detailed site-specific field-based support and logistical activities, surveys, detailed geological mapping	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	(ii) Detailed drilling and bulk sampling and testing for ore reserve calculations	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	(iii) Geotechnical studies for mine design	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	(iv) Mine planning and designs including all supporting infrastructures (water, energy and access) and test mining activities	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	(v) EIA and EMP to support the ECC for mining operations	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	(vi) Preparation of feasibility report and application for Mining License	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

SCALE		DESCRIPTION
A		Extremely unlikely (e.g. never heard of in the industry)
B		Unlikely (e.g. heard of in the industry but considered unlikely)
C		Low likelihood (egg such incidents/impacts have occurred but are uncommon)
D		Medium likelihood (e.g. such incidents/impacts occur several times per year within the industry)
E		High likelihood (e.g. such incidents/impacts occurs several times per year at each location where such works are undertaken)

5.3 Evaluation of Significant Impacts

5.5.1 Overview

The significance of each impact has been determined by assessing the impact severity against the likelihood (probability) of the impact occurring as summarised in the impact significance assessment matrix provided in Table 5.11.

5.5.2 Significance Criteria

Significance criteria for negative/adverse impacts (i.e., relative ranking of importance) are defined in Table 5.11. It is important to note that impacts have been considered without the implementation of mitigation measures. The need for and appropriate mitigation measures as presented in the EMP report have be determined on the basis of the impact assessment presented in this report.

Table 5.11: Scored impact significance criteria.

IMPACT SEVERITY (Magnitude, Duration, Extent, Probability)	**RECEPTOR CHARACTERISTICS (SENSITIVITY)**				
	Very High (5)	**High (4)**	**Medium (3)**	**Low (2)**	**Negligible (1)**
Very High (5)	Major [5/5]	Major [4/5[	Moderate [3/5]	Moderate [2 /5]	Minor 1/5
High (4)	Major [5/4]	Major [4/4]	Moderate [3/4]	Moderate [2/4]	Minor [1/4]
Medium (3)	Major [5/3]	Moderate [4/3]	Moderate [3/3]	Minor [2/3]	None [1/3]
Low (2)	Moderate [5/2]	Moderate [4/2]	Minor [3/2]	None [2/2]	None [1/2]
Negligible (1)	Minor [5/1]	Minor [4/1]	None [3/1]	None [2/1]	None [1/1]

5.5.3 Assessment Likely Significant Impacts

The assessment of significant impacts depended upon the degree to which the proposed / ongoing project activities are likely to results in unwanted consequences on the receptor covering physical and biological environments (Table 5.12). Overall, the assessment of significant impacts has focused on the ecosystem-based approach that considers potential impacts to the ecosystem. The main key sources of impacts that have been used in the determination of significant impacts posed by the proposed / ongoing minerals exploration comprised activities. Each of the main areas of impact have been identified and assessed as follows:

- Positive Impacts are classified under a single category; they are then evaluated qualitatively with a view to their enhancement, if practical;

- Negligible or Low Impacts will require little or no additional management or mitigation measures(on the basis that the magnitude of the impact is sufficiently small, or that the receptor is of lowsensitivity);

- Medium or High Impacts require the adoption of management or mitigation measures;

- High Impacts always require further management or mitigation measures to limit or reduce theimpact to an acceptable level.

Overall, the results of the significant impact assessment matrix for the proposed / ongoing minerals exploration activities on the physical and biological environments are shown in Tables 5.12.

Table 5.12: Significant impact assessment matrix for the proposed / ongoing exploration activities.

SIGNIFICANT IMPACT		PHYSICAL ENVIRONMENT						BIOLOGICAL ENVIRONMENT					SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT				
		Water Quality	Physical infrastructure and Resources	Air Quality, Noise and Dust	Landscape Topography	Soil Quality	Climate Change Influences	Habitat	Protected Areas	Flora	Fauna	Ecosystem functions, services, use values and non-Use or passive use	Local, regional and national socioeconomic settings	Commercial Agriculture	Community Protected Areas	Tourism and Recreation	Cultural, Biological and Archaeological Resources
1. Initial Desktop Exploration Activities	(i) General evaluation of satellite, topographic, land tenure, accessibility, supporting infrastructures and socioeconomic environment data	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	(ii) Purchase and analysis of existing Government high resolution magnetics and radiometric geophysical data	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	(iii) Purchase and analysis of existing Government aerial hyperspectral	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	(iv) Data interpretation and delineating of potential targets for future reconnaissance regional field-based activities for delineated targets	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
2. Regional Reconnaissance Field-Based Activities	(i) Regional geological, geochemical, topographical and remote sensing mapping and data analysis	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	(ii) Regional geochemical sampling aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	(iii) Regional geological mapping aimed at identifying possible targeted based on the results of the initial exploration and regional geological, topographical and remote sensing mapping and analysis undertaken	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	(iv) Limited field-based support and logistical activities including exploration camp site lasting between one (1) to two (2) days	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	(v) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets for future detailed site-specific exploration if the results are positive and supports further exploration of the delineated targets	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

IMPACT SEVERITY (Magnitude, Duration, Extent, Probability)	RECEPTOR CHARACTERISTICS (SENSITIVITY)				
	Very High (5)	High(4)	Medium (3)	Low (2)	Negligible (1)
Very High (5)	Major [5/5]	Major [4/5[	Moderate [3/5]	Moderate [2 /5]	Minor 1/5
High (4)	Major [5/4]	Major [4/4]	Moderate [3/4]	Moderate [2/4]	Minor[1/4]
Medium (3)	Major [5/3]	Moderate[4/3]	Moderate[3/3]	Minor[2/3]	None[1/3]
Low (2)	Moderate [5/2]	Moderate[4/2]	Minor[3/2]	None[2/2]	None[1/2]
Negligible (1)	Minor [5/1]	Minor [4/1]	None [3/1]	None [2/1]	None [1/1]

Table 5.12: *Cont.*

SENSITIVITY		PHYSICAL ENVIRONMENT						BIOLOGICAL ENVIRONMENT					SOCIOECONOMIC, CULTURAL AND ARCHAEOLOGICAL ENVIRONMENT				
		Water Quality	Physical infrastructure and Resources	Air Quality, Noise and Dust	Landscape Topography	Soil Quality	Climate Change Influences	Habitat	Protected Areas	Flora	Fauna	Ecosystem functions, services, use values and non-Use or passive use	Local, regional and national socioeconomic settings	Commercial Agriculture	Community Protected Areas	Tourism and Recreation	Cultural, Biological and Archaeological Resources
3. Initial Local Field-Based Activities	(i) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during regional reconnaissance field activities	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	(ii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	(iii) Ground geophysical survey (Subject to the positive outcomes of i and ii above)	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2
	(iv) Possible Trenching (Subject to the outcomes of i - iii above)	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2
	(v) Field-based support and logistical activities will be very limited focus on a site-specific area for a very short time (maximum five (5) days)	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2
	(vi) Laboratory analysis of the samples collected and interpretation of the results and delineating of potential targets	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
4. Detailed Local Field-Based Activities	(i) Access preparation and related logistics to support activities	2\2	2\2	2\2	2\2	2\2	2\2	3/2	3/2	3/2	3/2	3/2	2\2	2\2	2\2	2\2	2\2
	(ii) Local geochemical sampling aimed at verifying the prospectivity of the target/s delineated during the initial field-based activities	2\2	2\2	2\2	2\2	2\2	2\2	3/2	3/2	3/2	3/2	3/2	2\2	2\2	2\2	2\2	2\2
	(iii) Local geological mapping aimed at identifying possible targeted based on the results of the regional geological and analysis undertaken	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2
	(iv) Ground geophysical survey, trenching, drilling and sampling (Subject to the positive outcomes of i and ii above);	2\2	2\2	2\2	2\2	2\2	2\2	3/2	3/2	3/2	3/2	3/2	2\2	2\2	2\2	2\2	2\2
5. Prefeasibility and Feasibility Studies	(i) Detailed site-specific field-based support and logistical activities, surveys, detailed geological mapping	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2
	(ii) Detailed drilling and bulk sampling and testing for ore reserve calculations	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3
	(iii) Geotechnical studies for mine design	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2	2\2
	(iv) Mine planning and designs including all supporting infrastructures (water, energy and access) and test mining activities	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3
	(v) EIA and EMP to support the ECC for mining operations	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	(vi) Preparation of feasibility report and application for Mining License	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

IMPACT SEVERITY (Magnitude, Duration, Extent, Probability)	RECEPTOR CHARACTERISTICS (SENSITIVITY)				
	Very High (5)	High(4)	Medium (3)	Low (2)	Negligible (1)
Very High (5)	Major [5/5]	Major [4/5[	Moderate [3/5]	Moderate [2 /5]	Minor 1/5
High (4)	Major [5/4]	Major [4/4]	Moderate [3/4]	Moderate [2/4]	Minor[1/4]
Medium (3)	Major [5/3]	Moderate[4/3]	Moderate[3/3]	Minor[2/3]	None[1/3]
Low (2)	Moderate [5/2]	Moderate[4/2]	Minor[3/2]	None[2/2]	None[1/2]
Negligible (1)	Minor [5/1]	Minor [4/1]	None [3/1]	None [2/1]	None [1/1]

5.4 Assessment of Overall Impacts

5.6.1 Summary of the Results of the Impact Assessment

In accordance with Tables 5.7 - 5.12, the following is the summary of the overall likely negative and significant impacts of the proposed / ongoing exploration activities on the receiving environment (physical, biological and socioeconomic environments) without and with mitigations:

(i) Initial desktop exploration activities: Overall likely negative impact on the receiving environment will be negligible with extremely unlikely probability of occurrence without mitigations. Overall significant impacts will be negligible **[1/1]** (Table 5.12). Except for the socioeconomic components which carries a limited **(+)** at national level in terms of fees payable to the Government**,** the rest of the likely impacts are negative **(-)**;

(ii) Regional reconnaissance field-based activities: Overall likely negative impact on the receiving environment will be negligible with extremely unlikely probability of occurrence without mitigations. Overall significant impacts will be negligible **[1/1]**. Some field-based activities will have localised low impacts with low probability of occurrence without mitigations and negligible with mitigations. Overall significant impacts will be negligible **[1/1]** (Table 5.12). Except for the socioeconomic components which carries a limited **(+)** at national level in terms of fees payable to the Government, all the other likely impacts are negative **(-)**;

(iii) Initial local field-based activities: Initial field-based activities will have localised low impacts with low probability of occurrence without mitigations and negligible with mitigations**.** Overall significant impacts will be negligible **[2/2]**. All desktop related activities and laboratory assessments will have negligible impacts with extremely unlikely probability of occurrence without mitigations. Overall significant impacts will be negligible **[2/2]** (Table 5.12). Except for the socioeconomic components which carries a limited **(+)** at national level in terms of fees payable to the Government, all the other likely impacts are negative **(-)**;

(iv) Detailed local field-based activities: Overall likely negative impact on the receiving environment will be high and localised impacts without mitigations and localised low impacts with mitigations. Overall significant impacts will be medium **[2/2]** without mitigations and low with mitigations (Table 5.12). Except for the socioeconomic

components which carries a limited **(+)** at national level in terms of fees payable to the Government, all the other likely impacts are negative **(-)**, and;

(v) Prefeasibility and feasibility studies to be implemented on a site-specific area if the local field-based studies prove positive: Overall likely negative impact on the receiving environment will be high and localised impacts without mitigations and localised medium impacts with mitigations. Overall significant impacts will be high **[3/3]** without mitigations and low with mitigations for bulk sampling, test mining and field logistics (Table 5.12). Except for the socioeconomic components which carries a limited **(+)** at national level in terms of fees payable to the Government, all the other likely impacts are negative **(-)**.

6. CONCLUSION AND RECOMMENDATION

6.1 Conclusions

Livelife Investments (Pty) Ltd (**the Proponent**) intends to undertake exploration activities in the Exclusive Prospecting Licence (EPL) No. 6959 covering base, rare and precious metalsgroups. The exploration activities to be undertaken as assessed in this environmental assessment are as follows:

(i) Initial desktop exploration activities (no field-work undertaken);

(ii) Regional reconnaissance field-based mapping and sampling activities (Subject to the positive results of (i);

(iii) Initial local field-based mapping and sampling activities (Subject to the positive results of
(i) and (ii) above),

(iv) Detailed local field-based activities such as local geological mapping, geochemical mapping and sampling, trenching and drilling of closely spaced boreholes and bulk sampling (Subject to the positive results of (i) - (iii) above), and;

(v) Prefeasibility and feasibility studies (Subject to the positive results of (i) - (iv) above).

The overall severity of potential environmental impacts of the proposed / ongoing project activities on the receiving environment (physical, biological, socioeconomic environments and ecosystem functions, services, use and non-use values or passive uses) will be of low magnitude, temporally duration, localised extent and low probability of occurrence.

6.2 Recommendations

It's hereby recommended that the proposed / ongoing exploration activities be issued with an Environmental Clearance Certificate (ECC). The Proponent shall take into consideration the followingkey requirements for implementing the proposed exploration programme:

(i) The Proponent shall undertake thematic mapping in order to fully understand the land use plans of the local farms and identify areas of possible coexistence and no-go zones;

(ii) Based on the findings of this EIA Report, the Proponent shall prepare an EMP Report with key mitigations measures covering the lifecycle of the proposed exploration activities;

(iii) The Proponent shall negotiate Access Agreements with the land owner/s as may be applicable;

(iv) The Proponent shall adhere to all the provisions of the EMP and conditions of the Access Agreement to be entered between the Proponent and the land owner/s in line with all applicable national regulations;

(v) Before entering any private or protected property/ area such as a private farm, the Proponentmust give advance notices and obtain permission to access the EPL area at all times, and;

(vi) Where possible, and if water is found during the detailed exploration boreholes drilling operations, the Proponent shall support other land uses in the area in terms of access to freshwater supply for both human consumption, wildlife and agricultural support as may be requested by the local community / land owners/s. The abstraction of the groundwater resources shall include water levels monitoring, sampling and quality testing on a bi-annual basis, and that the affected landowners must have access to the results of the water monitoring analyses as part of the ongoing stakeholder disclosure requirements on shared water resources as maybe applicable.

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