



Draft Environmental Management Plan (EMP)

Exclusive Prospecting License (EPL) No. 7874 located west of Lüderitz in the //Karas Region, Namibia

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TABLE OF CONTENTS

LIST OF FIGURES i

LIST OF TABLES i

1 INTRODUCTION 1

 1.1 Project Background 1

 1.2 Aim of the Draft Environmental Management (EMP) 2

 1.3 Appointed Environmental Assessment Practitioner 3

 1.4 Environmental Assessment Legal Requirements..... 3

 1.5 Draft EMP Limitations..... 6

2 EMP IMPLEMENTATION, ROLES AND RESPONSIBILITIES 6

 2.1 Management of Key Potential Environmental Impacts to be managed 8

 2.2 Aim of the Environmental Management Plan Actions 9

 2.3 Planning, Prospecting and Exploration Management and Mitigation Action Plans ... 10

 2.4 Monitoring Action Plans (Monitoring Plan).....42

 2.5 Decommissioning and Rehabilitation Phase.....46

3 ENVIRONMENTAL MONITORING AND REPORTING47

4 RECOMMENDATION AND CONCLUSION47

LIST OF FIGURES

Figure 1: Location of the EPL 7874 located west of Lüderitz, in the //Karas Region 1

Figure 2: Location of the EPL 7874 located west of Lüderitz, in the //Karas Region48

LIST OF TABLES

Table 1: Applicable legal requirements and permits to the activities of the EPL 3

Table 2: Summary of key potential environmental impacts per project phase..... 8

Table 3: Management action plans for the planning, prospecting, and exploration phases.... 10

Table 4: Monitoring Action Plans during implementation of exploration activities42

1 INTRODUCTION

1.1 Project Background

Storm Two Mining CC (hereinafter referred to as *The Proponent*), intends to conduct prospecting and exploration activities on the Exclusive Prospecting License (EPL) 7874 located near Lüderitz, in the //Karas Region. The tenure of the EPL by the Ministry of Mines and Energy (MME) is valid from 09 October 2020 to 08 October 2023. The total surface area covered by EPL 7874 is 1,700.8391 hectares (ha). The Proponent's primary focus on the EPL is on the acquisition, exploration, and development of Base Metals, Rare and Precious Metals, Semi-Precious and as secondary, the Precious Stones. The EPL is located about 16 km stretching from west to southwest of Lüderitz (**Figure 1**) and in one of the national parks, the Tsau //Khaeb National Park formerly known as the Sperrgebiet that was proclaimed in 2008. This Park is also known as the Restricted Diamond Area and an environmentally sensitive area of the Namib Desert. The Tsau //Khaeb Park stretches from the southern border of the Namib Naukluft Park to the Orange River, the border of Namibia and South Africa and covers an area of 22,000 km².

In terms of section 27 (1) of the Environmental Management Act (EMA), no. 7 of 2007 and in line with Sections 32-37 of the EMA as gazetted in 2012, the proposed prospecting and exploration activities on the EPL form part of the listed activities that may not be conducted without an EIA being undertaken and an ECC obtained. The relevant listed activities as per EIA regulations are:

- *3.1 The construction of facilities for any process or activities which requires a license, right of other forms of authorization, and the renewal of a license, right or other form of authorization, in terms of the Minerals (Prospecting and Mining Act, 1992).*
- *3.2 other forms of mining or extraction of any natural resources whether regulated by law or not.*
- *3.3 Resource extraction, manipulation, conservation and related activities.*

This statutory document has been prepared as per requirement in accordance with Section 8 of the EMA (No. 7 of 2007). The compilation of this EMP is one of the requirements (scope of work) presented to Excel Dynamic Solutions (Pty) Ltd by The Proponent. It is required of the Environmental Consultant to comply with the EMA and provide for the following:

- Prepare an explicit Environmental Management Plan to be used as a guideline to monitor compliance to the recommendations stipulated in the EIA and to assist in managing and

monitoring activities throughout the operation and maintenance of the proposed exploration and prospecting activities on the EPL.

- The Environmental Consultant must clearly elucidate in the EMP the roles and responsibilities of the Proponent, the contractors, and any other identified stakeholders.

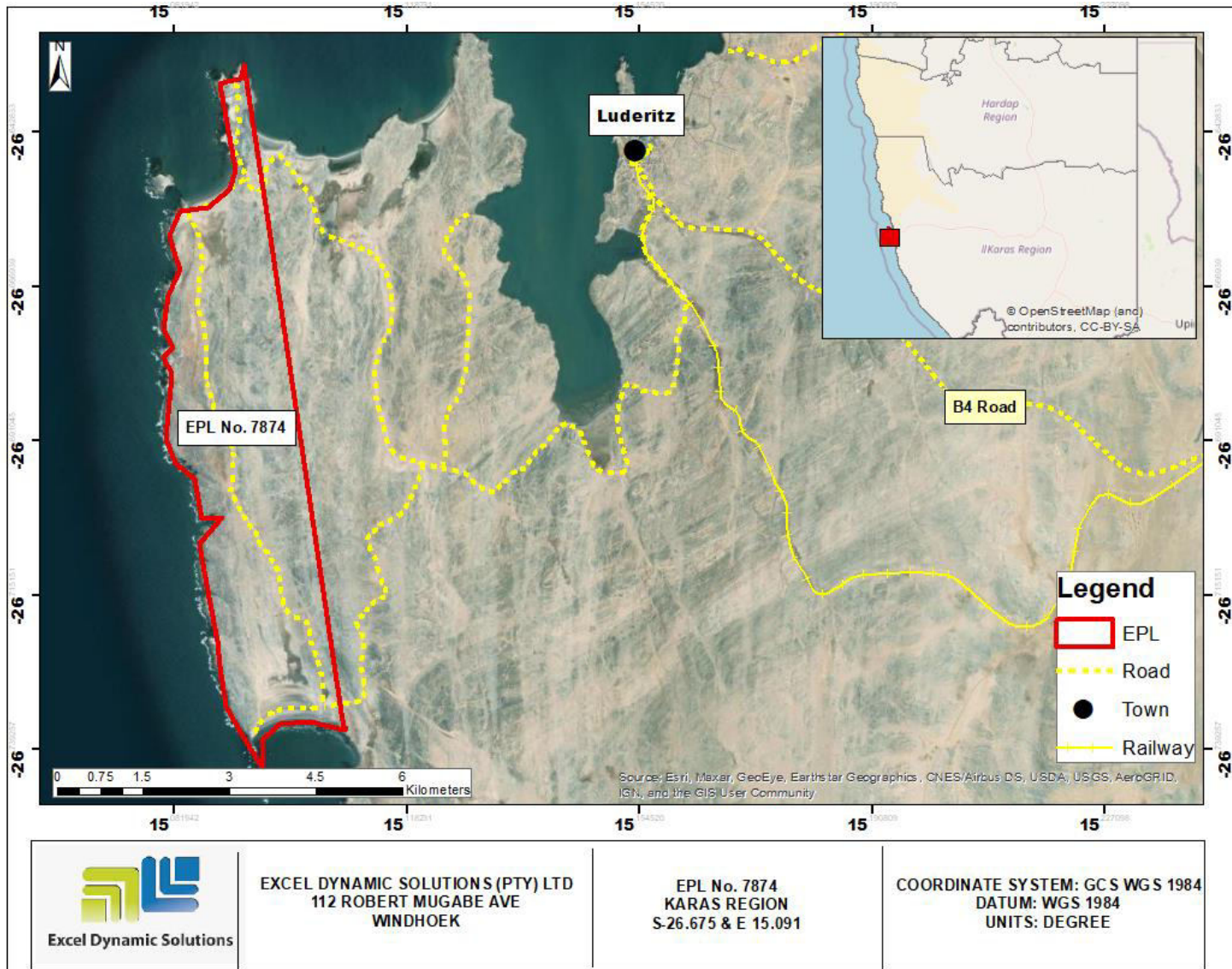


Figure 1: Location of the EPL 7874 located west of Lüderitz, in the //Karas Region

1.2 Aim of the Draft Environmental Management (EMP)

Regulation 8(j) of the EIA Regulations (2012) requires that a draft Environmental Management Plan (EMP) shall be included as part of the Environmental Assessment (EA) scoping report. A

'**Management Plan**' is defined as:

“...a plan that describes how activities that may have significant environments effects on the environment are to be mitigated, controlled and monitored.”

An EMP is one of the most important outputs of the EA process as it synthesizes all the proposed mitigation and monitoring actions, set to a timeline and with specific assigned responsibilities. It provides a link between the impacts identified in the EA process and the required mitigation measures to be implemented during operation. It is important to note that an EMP is a statutory document and a person who contravenes the provisions of this EMP may face imprisonment and/or a fine. This EMP is a living document and can be amended to adapt to address project changes and/or environmental conditions and feedback from compliance monitoring.

The purpose of this document is, therefore, to guide environmental management throughout the different phases of the proposed exploration activities, the prospecting and exploration, and decommissioning phase:

- **Planning, prospecting, and exploration** - This is the phase where The Proponent does exploration and prospecting for the targeted commodity groups and undertake related activities on site. It is also the phase during which maintenance of the area, equipment and machinery is carried out by the Proponent.
- **Decommissioning and Rehabilitation** – This is the phase during which the exploration activities on the EPL cease. The decommissioning of the exploration operations may be considered because of poor exploration results or declining in the economic relevance of the focus commodity market price. Before the decommissioning phase, The Proponent will need to put site rehabilitation measures in place.

Environmental Monitoring Requirements: To support and ensure that the proposed mitigation measures are achieving the desired results, a monitoring plan must be implemented alongside the mitigation plan.

This draft EMP is to be used by the Proponent, employees and/or contractors to provide management measures to be undertaken during the exploration and prospecting activities, to

address the environmental impacts identified in the environmental scoping report and ensure that the impacts on the environment are avoided or limited if they cannot be avoided completely.

1.3 Appointed Environmental Assessment Practitioner

To fulfill the requirements of the EMA and its 2012 EA Regulations, The Proponent appointed Excel Dynamic Solutions (Pty) Ltd (EDS), an independent consulting company to conduct the required EA process on their (Proponent's) behalf. This draft EMP is submitted as part of an application for an ECC to the Environmental Commissioner at the Department of Environmental Affairs and Forestry (DEAF) at Ministry of Environment, Forestry and Tourism (MEFT).

The EA project is headed by Mr. Nerson Tjelos, a qualified geoscientist and experienced Environmental Assessment Practitioner (EAP).

1.4 Environmental Assessment Legal Requirements

The content of the EMP must meet the requirements of Section 8 (j) of the EIA Regulations. The EMP must address the potential environmental impacts of the exploration and prospecting activities on the environment throughout the project life cycle. It must also include a system for assessment of the effectiveness of monitoring and management arrangements after project implementation.

The Proponent, therefore, has the responsibility to ensure that the exploration activities as well as the EA process conform to the principles of the EMA and must ensure that employees act in accordance with such principles. **Table 1** below lists the requirements of an EMP as stipulated by Section 8 (e) of the EIA Regulations, primarily on specific approvals and permits that may be required for the activities required of the EPL.

Table 1: Applicable legal requirements and permits to the activities of the EPL

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Environmental Management Act EMA (No 7 of 2007)	Requires that projects with significant environmental impacts are subject to an environmental assessment process (Section 27). The Act details principles which are to guide all EAs.	The EMA and its regulations should inform and guide this EA process.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
<p>Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 4878)</p>	<p>Details requirements for public consultation within a given environmental assessment process (GN 30 S21).</p> <p>Details the requirements for what should be included in a Scoping Report (GN 30 S8) and an Assessment Report (GN 30 S15).</p>	<p>Should the ECC be issued to the Proponent, it should be renewed every 3 years, counting from the date of issue.</p> <p>Contact details at the Department of Environmental Affairs and Forestry (DEAF), Ministry of Environment and Tourism (MET)</p> <p>Contact person(s) at MEFT and their details:</p> <p>Mr. Damian Nchindo or Mr. Josafat Hiwana (Chief and Senior Conservation Scientists and EIA Report Reviewers/evaluators)</p> <p>Tel: +264 61 284 2717 / +264 61 284 2962</p> <p>Email: damian.nchindo@met.gov.na and josafat.hiwana@met.gov.na, respectively</p>
<p>Minerals (Prospecting and Mining) Act (No. 33 of 1992)</p>	<p>Section 48 (3): To enable the Minister to consider any application referred to in section 47 the Minister may (b) require the person concerned by notice in writing to (i) carry out or cause to be carried out such environmental impact studies as may be specified in the notice.</p> <p>Section 54(2): details provisions pertaining to the decommissioning or abandonment of a mine.</p> <p>Under this Act (Section 51 (1a)), holder of a mineral license cannot exercise any rights on a private land until the holder has entered into an agreement with the owner or custodian regarding payment of compensation</p>	<p>The Proponent should ensure that all necessary permits/authorization for these exploration activities (if any) are obtained from the Ministry of Mines and Energy (MME).</p> <p>Contact person and details at the MME (Mining Commissioner)</p> <p>Mr. Erasmus Shivolo</p> <p>Tel: +264 61 284 8167</p>

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
		Email: Erasmus.Shivolo@mme.gov.na The Proponent should on time enter into and sign access and land use agreement (consent) with respective affected landowners/occupiers of land and or custodian of the land.
Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001)	Regulation 3(2)(b) states that “No person shall possess [sic] or store any fuel except under authority of a licence or a certificate, excluding a person who possesses or stores such fuel in a quantity of 600 litres or less in any container kept at a place outside a local authority area”	The Proponent should obtain the necessary authorisation from the MME for the storage of fuel on-site. Carlo Mcleod (Ministry of Mines and Energy: Acting Director – Petroleum Affairs) Tel: +264 61 284 8291
Labour Act 11 of 2007 Health and Safety Regulations (HSR) GN 156/1997 (GG 1617).	Adhere to all applicable provisions of the Labour Act and the Health and Safety regulations.	Division of Labour Services at the Ministry of Labour, Industrial Relations and Employment Creation. Tel: +264 61 206 6111
National Heritage Act (Act No. 27 of 2004)	The Act makes provision for the protection and conservation of places and objects of heritage significance and the registration of such places and objects. Part V Section 46 of the Act prohibits removal, damage, alteration, or excavation of heritage sites or remains, while Section 48 sets out the procedure for application and granting of permits such as might be required in the event of damage to a protected site occurring as an inevitable result of development. Part VI Section 55 Paragraphs 3 and 4 require that any person who discovers an archaeological site should notify the National Heritage Council. Section 51 (3) sets out the requirements for impact assessment.	Mr Manfred Gaeb (Regional Heritage Officer) – National Heritage Council of Namibia Tel:(061) 301 903 OR Ms. Agnes Shiningayamwe (Regional Heritage Officer) – National Heritage Council of Namibia Tel: (06) 301 903

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
	Should any objects of heritage significance be identified during the exploration, the work must cease immediately in the affected sites and the necessary steps taken to seek authorisation from the Council.	
Road traffic and transport Act 52 of 1999 and its 2001 Regulations	Provides for the control of traffic on public road and the regulations pertaining to road transport, including the licensing of vehicles and drivers.	Eugene de Paauw (Roads Authority- specialist Road legislation) Tel: +264 61 284 7072

1.5 Draft EMP Limitations

This EMP has been drafted with the acknowledgment of the following limitations:

- This EMP has been drafted based on the Environmental Assessment (EA) conducted for targeted prospecting and exploration of Base and Rare Metals, Precious Stones, Semi-precious Stones and Precious Metals on the EPL located west of Lüderitz in the //Karas region.
- The mitigation measures recommended in this EMP document are based on the risks/impacts in the EA Report which were identified based on the project description as provided by the Proponent, site investigation and public input. Should the scope of the proposed project change, the risks/impacts will have to be reassessed and mitigation measures provided accordingly.

2 EMP IMPLEMENTATION, ROLES AND RESPONSIBILITIES

The Proponent is ultimately responsible for the implementation of the EMP. However, the Proponent may delegate this responsibility at any time, as they deem necessary during the project phases. The roles and responsibilities of all delegates/parties involved in the effective implementation of this EMP are set out below:

Competent Monitoring Authority (Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs and Forestry (DEAF)): Responsible for enforcing compliance with the EMA, its regulations and full implementation of this EMP. The competent

authority also reviews biannual reports and grant ECC renewal after 3 years following an environmental Audit.

Proponent's Representative (PR): If the Proponent does not personally manage all aspects and phases' activities referred to in this EMP, they should assign this responsibility to a suitably qualified individual referred to in this plan as the Proponent's Representative (PR). The PR may be appointed to manage all phases of the exploration project, or to manage only the EMP aspects for the project. The PR's responsibilities may include:

- Managing the implementation of this EMP and updating and maintaining it when necessary.
- Management and monitoring of individuals and/ or equipment on-site in terms of compliance with this EMP.
- Issuing fines for contravening EMP provisions.

Exploration Project Manager (as appropriate): This individual(s) will be responsible to ensure that the exploration and prospecting activities of the project are completed on time. The manager's duties and responsibilities will include:

- Ensure that relevant commitments contained in the EMP Action Plans are adhered to.
- Ensure relevant staff is trained in procedures entailed in their duties.
- Maintain records of all relevant environmental documentation for the project.
- Reviewing the EMP annually and amending the document when necessary.
- Issuing fines to individuals who may be in breach of the EMP provision and if necessary, removing such individuals from the site.
- Cooperate with all relevant interested and affected parties/stakeholders.
- Development and management of schedules for daily activities.

Environmental, Health & Safety (EHS) Officer or Environmental Control Officer (ECO):

The Proponent may assign the responsibility of ensuring EMP compliance throughout the project life cycle to a designated member of staff or external qualified and experienced person, referred to in this EMP as the Environmental Control Officer (ECO) or Environmental, Health & Safety (EHS) Officer. The ECO/SHE Officer will have the following responsibilities:

- Management and facilitation of communication between the Proponent, PR and Interested and Affected Parties (I&APs) regarding this EMP.

- Conducting site inspections (recommended frequency is monthly during the operation phase and bi-annually for the operation and maintenance) of all areas with respect to the implementation of this EMP (monitor and audit the implementation of the EMP).
- Advising the PR on the removal of person(s) and/or equipment not complying with the provisions of this EMP.
- Making recommendations to the PR with respect to the issuing of fines for contraventions of the EMP.
- Undertaking an annual review of the EMP and recommending additions and/or changes to this document.
- Ensuring that the operational activities on site operate according to the International System organization (ISO) standard 14001: 2015.

Archaeology: Chance Finds Procedure (CFP) Implementation Roles

The following personnel have been assigned responsibilities as per the Chance Finds Procedure (Appendix 1):

- **Operator:** To exercise due caution if archaeological remains are found.
- **Foreman:** To secure site and advise management timeously.
- **Superintendent:** To determine safe working boundary and request inspection.
- **Archaeologist:** To inspect, identify, advise management, and recover remains.

The Proponent should assess these commitments in detail and should acknowledge their obligation to the specific management actions detailed in the Tables under the following sections.

2.1 Management of Key Potential Environmental Impacts to be managed

From the assessment conducted, the following key potential negative impacts have been identified per project phase and are summarized in **Table 2** below.

Table 2: Summary of key potential environmental impacts per project phase

	Project Phase	Potential negative impacts identified in the EA
1	Planning, Prospecting and Exploration	Pressure on water supply, physical land (soil) disturbance, soil and water resources pollution, loss of biodiversity (fauna and flora), land use conflict, dust generation, impact on visual and tourism, vehicular traffic, impact on archaeological resources,

	Project Phase	Potential negative impacts identified in the EA
		waste generation, occupation health and safety, noise and vibrations.

2.2 Aim of the Environmental Management Plan Actions

The aim of the management actions of the EMP is to avoid potential negative impacts where possible. Where impacts cannot be avoided, measures are provided to reduce the significance of these impacts.

Management actions recommended for the potential impacts rated in the EIA carried out for the prospecting and exploration activities were based on the three project phases listed below:

- Planning, Prospecting, and exploration (Operation and Maintenance Phase) as well as Decommissioning and Rehabilitation - **Table 3**
- Monitoring (**Table 4**)

The responsible person(s) should assess these actions in detail and acknowledge their commitment to the specific management actions detailed in the phases given under the following subsections.

2.3 Planning, Prospecting and Exploration Management and Mitigation Action Plans

The management action plans recommended for this phase are presented in **Table 3** below.

Table 3: Management action plans for the planning, prospecting, and exploration phases

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
PLANNING PHASE						
EMP implementation and training	Lack of EMP awareness and implications thereof	<p>A Comprehensive Health and Safety Plan for the project activities should be compiled. This will include all the necessary health, safety, and environmental considerations applicable to respective works on sites.</p> <p>An EMP non-compliance penalty system should be implemented on site.</p> <p>The Proponent should appoint an EHS Officer to be responsible for managing the EMP implementation and monitoring.</p>	<p>All required Plans and systems are compiled and in place.</p> <p>and Environmental, Health & Safety (EHS) Officer or Environmental Control Officer (ECO) is appointed</p>	Proponent	EMP implementation Plans and Systems	Pre-exploration
Authorizations	Lack of Agreements, Permits/ Licenses	<p>All the required agreements and licenses or permits should be applied for and signed, respectively before commencement of work on the EPL, or as required.</p> <p>The permits, agreements referred to herein include land access & use (by the custodian of the land (by MEFT's Parks Division), waste management disposal permits from</p>	<p>Applicable permits and licenses to obtained from relevant authorities and kept on site for records keeping and future inspections.</p> <p>Agreements/permits signed and obtained from on time, min. 2</p>	Proponent	<p>Proponent</p> <p>Respective authorities and services provider(s)</p>	Prior to exploration works

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		the relevant facility operator/owner, water supply agreement and should there be fuel handling on site, petroleum storage permits from Ministry of Mines and Energy (MME), etc.	months prior to planned commencement date of works.			
Communication between the Proponent and other neighbouring land users and custodians	Lack of communication (proper liaison) between other land users and Proponent with regards to land use	The Proponent should appoint a Public Relation Officer (PRO) to liaise with the land users and or custodians. A clear communication procedure/plan which should include a grievance mechanism should be compiled.	A PRO is appointed Ongoing Stakeholders' and Public Engagement & Consultation throughout the project cycles, when and as required. PRO contact details to be provided to the affected land users and custodian	Proponent	PRO Complaint's logbook	PRO appointment (Prior to project activities) and their responsibilities throughout the project activities
Employment	Creation of employment opportunities	Non-skilled labour should be sourced from the locally affected area (people from the local communities), in accordance with procedures approved by the relevant authorities. Equal opportunities should be provided for both men and women.	Number of locals employed for exploration activities	Proponent in collaboration with the Exploration Manager (if necessary)	Record of employees	Pre-project activities and when necessary, throughout

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
Specialised procurement of services	Exploration contractors and services	All services related to exploration activities such as trenching/pitting and drilling that the Proponent may need, preference should be given to local providers of such services. If not available locally, the services search should be extended to a regional level (//Karas Region) and lastly, nationally.	Number of hired contractors	Proponent Exploration Manager	Record of hired or contracted companies or services providers	Pre-project activities and when necessary, throughout
PROSPECTING AND EXPLORATION PHASE						
EMP implementation and training	Lack of EMP awareness and implications thereof	<p>EMP trainings should be provided to all new workers on site.</p> <p>All site personnel should be aware of necessary health, safety, and environmental considerations applicable to their respective work.</p> <p>The implementation of this EMP should be monitored.</p> <p>The site should be inspected, and a compliance audit done throughout <u>the project activities, monthly.</u></p> <p>An EMP non-compliance penalty system should be implemented on site.</p>	<p>Compliance monitoring conducted monthly for the exploration phase and should be recorded.</p> <p>Timely renewal of the Environmental Clearance Certificate (ECC) every 3 years if exploration is not included within 3 years.</p>	EHS Officer	<p>Bi-annual reports</p> <p>Records of EMP training conducted.</p>	Throughout the exploration phase and as required

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
Communication between the Proponent and other neighbouring land users and custodians	Lack of communication (proper liaison) between other land users and Proponent with regards to land use	<p>The PRO should be introduced to the neighbouring land users or the representative and his or her contact details provided to them prior to undertaking activities for easy communication during the exploration activities.</p> <p>The Proponent should compile a clear communication procedure/plan which should include a grievance and response mechanism.</p>	<p>PRO is part of the project personnel.</p> <p>Ongoing Stakeholders' and Public Engagement & Consultation throughout the project cycles, when and as required</p>	PRO	<p>Complaint's logbook</p> <p>PRO contact details to be provided to the affected land users.</p> <p>Records of Stakeholders' and Public Consultations</p>	Throughout the project activities
Water Resources Use	Over-abstraction (water demand and availability)	<p>Abstraction of water from local aquifers should be avoided at all costs by ensuring that part of the required water is sourced from the Lüderitz Town Council water supply line (through agreed purchase) and or augmented by carted water from areas with better supply.</p> <p>The Proponent should prioritize carting water from outside the project area (for specific exploration activities such as drilling/cooling of equipment) and reach an agreement with the Lüderitz Town Council to supply water for drinking (to augment the project water needs).</p>	<p>Water supply agreements</p> <p>Proof/ recording/ quantification of water saving efforts.</p>	<p>Proponent</p> <p>Exploration Manager</p>	<p>Water supplier</p> <p>Proponent</p> <p>Water storage tanks on site</p>	<p>Once off supply agreement</p> <p>Throughout the phase</p>

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>Although water will not be abstracted from the local aquifers, the water user (Proponent) should be water-use conscious and consider voluntary water use reduction by sticking to their proposed threshold volumes or less when more water is not really required.</p> <p>The Proponent should aim to use water efficiently, recycle and re-use where necessary and possible.</p> <p>Water reuse/recycling methods should be implemented as far as practicable for exploration activities. The water used to cool off exploration equipment should be captured and used for the cleaning of project equipment, if possible.</p> <p>Water conservation awareness and saving measures training should be provided to all the project workers in both phases so that they understand the importance of conserving water and become accountable.</p>				
Soils	Physical soil/land disturbance and loss of topsoil	Overburden should be handled more efficiently during operations to avoid erosion when subjected erosional processes.	<p>No proliferation of informal vehicle tracks.</p> <p>No new erosion gullies.</p>	EHS Officer/ECO	<p>Proponent</p> <p>All personnel</p>	Throughout the exploration phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>Stockpiled topsoil and drill materials should be used to backfill the excavated and disturbed site areas/spots.</p> <p>Soils that are not within the intended and targeted footprints of the site should be left undisturbed and soil conservation implemented as far as possible.</p> <p>Project vehicles and machinery should stick to access roads provide and or meant for the project operations but not to unnecessarily create further tracks on site by driving everywhere resulting in soil compaction.</p> <p>The disturbance of the soil surface in the vicinity of the working sites must be minimised to prevent wind erosion. The footprint of the exploration site area must be kept small as much as possible and existing access road are to be always utilised to avoid off road tracks.</p> <p>The project footprint area should not be cleared entirely, and the exploration vehicles and equipment must be placed in such a way that soil disturbance is minimised, and</p>			Complaints logbook	

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>the site should be rehabilitated after each onsite work.</p> <p>Utilize the existing road trucks as far as possible to minimize the creation of unnecessary and long-term footprints on the already sensitive desert soils</p>				
Soils and water resources	Soils and water resources pollution	<p>Oil and wastewater spill control preventive measures should be in place on site to management soil contamination, thus preventing and or minimizing the contamination from reaching water resources bodies. Some of the soil control preventive measures that can be implemented include:</p> <ul style="list-style-type: none"> -Identification of oil storage and use locations on site and allocate drip trays and polluted soil removal tools suitable for that specific surface (soil or hard rock cover) on the sites. -Maintain equipment and fuel storage tanks to ensure that they are in good condition thus preventing leaks and spills. -The oil storage and use locations should be visually inspected for container or tank condition and spills. 	<p>No complaints of pollutants on the soils and eventually in the water due to exploration activities</p> <p>No visible oil spills on the ground or pollution spots.</p>	EHS Officer	<p>Complaint's logbook</p> <p>Waste containers</p> <p>Non-permeable material to cover the ground surface at areas where hydrocarbons and potential pollutants are utilized.</p>	Throughout exploration phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>-Maintain a fully provisioned, easily accessed spill kit. Spill kits should be located throughout the active project sites contain the floor dry absorbent material and absorbent booms, pads, mats. These would be suitable for ground surface areas that are covered mainly by hard rocks.</p> <p>All project employees should be sensitized about the impacts of soil pollution and advised to follow appropriate fuel delivery and handling procedures.</p> <p>The Proponent should develop and prepare countermeasures to contain, clean up, and mitigate the effects of an oil spill. This includes keeping spill response procedures and a well-stocked cache of supplies easily accessible.</p> <p>Ensure employees receive basic Spill Prevention, Control, and Countermeasure (SPCC) Plan training and mentor new workers as they get hired.</p> <p>Exploration site areas where hydrocarbons will be utilized, the surface should be covered with an impermeable plastic liner (e.g., an HDPE liner), carefully placed to</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>minimize risk of puncturing, to prevent any spillages from getting into direct contact with the soils and prevent eventual infiltration into the ground.</p> <p>Project machines and equipment should be equipped with drip trays to contain possible oil spills when operated on site.</p> <p>In cases of accidental fuel or oil spills on the soils from site vehicles, machinery and equipment, the polluted soil should be removed immediately and put in a designate waste type container for later disposal as per the preceding bullet point. The removed polluted soil should either be completely disposed of or cleaned and returned to where it was taken from on site or can be replaced with a cleaner soil. This is to ensure that the pollutants contained int the soil does not infiltrate into the site soils and eventually reach to groundwater.</p> <p>Although fuel (diesel) required for exploration equipment will be stored in a tank mounted on a mobile trailer, drip trays must be readily available on this trailer and monitored to ensure that accidental</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>fuel spills along the tank trailer path/route around the exploration sites are cleaned on time (soon after the spill has happened).</p> <p>If any accidental pollution occurs on site soil, the polluted soil must be collected and transported away from the site to an approved and appropriately classified hazardous waste treatment facility.</p> <p>Washing of equipment contaminated hydrocarbons, as well as the washing and servicing of vehicles should take place at a dedicated area, where contaminants are prevented from contaminating soil or water resources.</p>				
Biodiversity	Loss of Fauna and Flora	<p>Avoid undertaking exploration activities on the clearly marked no-go areas within the EPL (Figure 2)</p> <p><u>Vehicles and Tracks:</u></p> <p>Avoid unnecessary affecting areas viewed as important habitat – i.e., rocky outcrops; lithops/lichen fields; clumps of protected flora species; dune hummocks, etc.</p>	<p>No disturbance to marked sensitive areas.</p> <p>No complaints from locals regarding unauthorised vegetation removal or cutting down of trees.</p> <p>No complaints of wildlife hunting by the project personnel.</p>	EHS Officer	<p>Barricading tape (to indicate working areas)</p> <p>Complaint logbook</p>	Throughout the exploration phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>Make use of existing tracks/roads as much as possible throughout the area.</p> <p>Do not drive randomly throughout the area (could cause mortalities to vertebrate fauna and unique flora; erosion related problems, etc.).</p> <p>Avoid off-road driving at night as this increase mortalities of nocturnal species.</p> <p>Implement and maintain off-road track discipline with maximum speed limits (e.g., 30km/h as this would result in fewer faunal mortalities and limit dust pollution.</p> <p>Where tracks must be made to potential exploration sites off the main routes, the routes should be selected in such a way that they cause minimal damage to the environment – e.g., use the same tracks; cross drainage lines at right angles; avoid placing tracks within drainage lines; avoid collateral damage (i.e., select routes that do not require the unnecessary removal of vegetation, especially protected species).</p>	<p>No intentional disturbance and destruction of site vegetation and faunal species</p> <p>Visible preservation of onsite vegetation</p>			

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>Rehabilitate all new tracks created as soon as exploration activities are completed.</p> <p><u>Campus and Exploration Sites (There will be no exploration camps onsite as the contractors and workers will be accommodated in Lüderitz. Therefore, these recommendations will only be applicable to temporary lay over sites and exploration sites)</u></p> <p>Select camp sites and other temporary lay over sites with care – i.e., avoid important habitats (e.g., lichen fields; dune hummocks, etc.) – or bus people in daily from Lüderitz to avoid potential on-site problems.</p> <p>Use portable toilets to avoid fecal pollution around camp and exploration sites.</p> <p>Initiate a suitable and appropriate refuse removal policy as littering could result in certain animals becoming accustomed to humans and associated activity and result in typical problem animal scenarios – e.g., black-backed jackal, crows, gulls, etc.</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>Avoid and/or limit the use of lights during nocturnal exploration activities as this could influence and/or affect various nocturnal species – e.g., bats and owls, etc. Use focused lighting for least effect.</p> <p>Prevent the killing of species viewed as dangerous – e.g., various snakes – when on site.</p> <p>Prevent the setting of snares for ungulates (i.e., poaching) or collection of veld foods (e.g., tortoises) and unique plants (e.g., various succulent, <i>Aloe</i> and <i>Lithop</i> spp.) or any form of illegal hunting activities.</p> <p>Avoid introducing dogs and cats as pets to camp sites as these can cause significant mortalities to local fauna.</p> <p>Remove and relocate slow moving vertebrate fauna (e.g., tortoises, chameleon, snakes, etc.) to suitable habitat elsewhere.</p> <p>Avoid the removal and/or damaging of protected flora potentially occurring in the general area – e.g., various succulent, <i>Aloe</i> and <i>Lithop</i> spp., etc.</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>Avoid introducing ornamental plants, especially potential invasive alien species, as part of the landscaping of the camp site, etc., but rather use localised indigenous species, should landscaping be attempted, which would also require less maintenance (e.g., water).</p> <p>Remove all invasive alien species on site – e.g., <i>Nicotiana glauca</i>, etc. This would not only indicate environmental commitment, but actively contribute to a better landscape.</p> <p>Inform contractors/workers regarding the above-mentioned issues prior to exploration activities and monitor for compliance thereof throughout.</p> <p>Rehabilitate all areas disturbed by the exploration activities – i.e., camp sites, exploration sites, etc.</p> <p>Employ an independent environmental auditor to ensure compliance, especially of the rehabilitation of all the affected areas.</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
Illegal hunting	Illegal hunting of wildlife	<p>No wildlife hunting is permitted.</p> <p>Site personnel should refrain from killing/poaching or intentionally disturbing wildlife, or any faunal species found on site and around the exploration sites.</p>	<p>Incident reports of illegal hunting of wildlife by the crew.</p>	EHS Officer	<p>Complaint's logbook</p> <p>MEFT Parks' Division</p> <p>Anti-poaching Police Unit</p>	<p>During site set up, and throughout exploration phase</p>
Land Use	Conflict between neighbouring land uses and exploration activities	<p>The Proponent should avoid carrying out exploration works within the Peninsula area of the EPL or within 5 km of the Peninsula boundaries.</p> <p>Since the western part of the EPL is a marine protected area, the Proponent should consult with the Ministry of Fisheries and Marine Resources (MFMR) to apply for a permit (with conditions/restrictions and buffers or no-go zones) to guide the proposed works within the EPL.</p> <p>Exploration activities should not in any hinder the existing land uses within the EPL but rather promote co-existence throughout the operations while respecting other land users.</p> <p>The project workers and vehicles should be limited to the actual EPL active sites only but not unnecessarily wander and drive</p>	<p>Land access and use permits/authorizations.</p> <p>Compliance with conditions set within operational permits by relevant and affected authorities.</p> <p>Little to no complaints of significant interference from the neighbouring land users</p>	<p>PRO</p> <p>Proponent</p> <p>EHS Officer/ECO</p>	<p>Proponent</p> <p>Relevant authorities (MEFT, MME, MFMR, etc.)</p>	<p>Throughout the exploration phase</p>

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>around other land uses sites, respectively.</p> <p>The project vehicles and equipment should not be parked at tourist sites nor hinder the movement of tourists while operating near tourist routes within the EPL.</p> <p>The Proponent should ensure that their activities comply with the conditions set by the competent, regulatory, and affected authorities such that the proposed exploration activities do not severely impact the different existing activities of the National Park.</p> <p>Permits and authorizations that regulate the operations of developments in a national park should be applied for and obtained from the relevant authorities prior to commencement of works on site</p>				
Aesthetics of the area	Impact on Tourism and Visual	The Proponent should consider the implementation of continuous rehabilitation programme, by using topsoil and overburden waste rocks and restoring and vegetation harmed through the process, to visually maintain the landscape's natural setting.	<p>No further major contribution to the visual impact in the area.</p> <p>No complaints from the locals regarding major eyesore due to unmanaged site restoration/rehabilitation</p>	Proponent Exploration Manager	Complaint's logbook	Throughout the exploration phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>The Proponent should not create unnecessary routes (access roads), which lead to landscape scarring on site by utilizing existing road trucks as far as possible to minimize the creation of unnecessary and long-term footprints on the already sensitive desert soils.</p> <p>The Proponent should carry out progressive working and restoration/rehabilitation over the shortest timescale possible, to avoid excessive areas of disturbance on site.</p> <p>Consider setting up drill rigs and associated facilities further from the roads' parts of the EPL to reduce the sight from road users.</p> <p>In the case that two or more confirmed targets for detailed exploration are close to the roads, consider working as fast as possible on sites that are closest to the roads to ensure that the presence of trucks, drill rigs and associated structures is shortened.</p> <p>Avoid using vehicles, equipment, machinery and even ablution facilities with different contrasting colours so that they do not cause a</p>	<p>Visible progressive backfilling done to reduce landscape contrast.</p>			

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		significant contrast on site (different bright colours present on site).				
Road use and safety	Increase in vehicular traffic flow	<p>Vehicles should be driven only on existing access roads and necessary temporary access roads only leading to EPL mapped sites; no new roads should be constructed.</p> <p>The transportation of exploration materials, equipment and machinery should be limited to once or twice a week only, but not every day.</p> <p>The heavy truck loads should comply with the maximum allowed limit while transporting materials and equipment/machinery on the public and access roads.</p> <p>The carted water into the area from outside the project area and Lüderitz should be done once or twice a week in container that can supply and store water for most of the week, thus reducing the number of trucks on the road.</p> <p>Drivers of all project phases' vehicles should be in possession of valid and appropriate driving licenses.</p>	<p>No complaints from members of the public regarding vehicular traffic issues related to the project activities.</p> <p>All personnel operating the project vehicles and machinery are appropriately licensed and possession of valid driving licenses.</p> <p>Demarcated areas for parking, offloading, and loading zones are on sites.</p> <p>If required, site access road permits obtained, and requirements fulfilled.</p> <p>No creation of unnecessary tracks on site.</p>	<p>Proponent</p> <p>EHS Officer/ECO</p>	None	<p>Throughout exploration phase</p> <p>Site access permit (s) to be applied for and obtained prior to commencement of exploration works</p>

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>Vehicle drivers should adhere to the road safety rules.</p> <p>Drivers should drive slowly (40km/hour or less), and on the lookout for wildlife and people.</p> <p>Project vehicles should be in a road worthy condition and serviced regularly to avoid accidents because of mechanical faults of vehicles.</p> <p>Vehicle drivers should only make use of designated site access roads provided.</p> <p>Vehicle drivers should not be allowed to operate vehicles while under the influence of alcohol.</p> <p>Sufficient parking area for all project vehicles should be provided for and clearly demarcated on sites.</p> <p>The Proponent should make provision for safe materials and equipment offloading and loading areas on sites.</p> <p>No heavy trucks or project related vehicles should be parked outside the project site boundary or demarcated areas for such purpose.</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>Truck movements, frequency, times, and routes should be carefully planned and scheduled – please refer to the next point.</p> <p>To control traffic movement on site, deliveries from and to site should be carefully scheduled. This should optimally be during weekdays and between the hours of 8am and 5pm.</p>				
<p>Health and safety</p> <p>Health and safety</p>	<p>General health and safety associated with project activities in both phases</p>	<p>The Labour Act’s Health and Safety Regulations should be complied with.</p> <p>As part of their induction, the project workers should be provided with an awareness training of the risks of mishandling equipment and materials on site as well as health and safety risk associated with their respective jobs.</p> <p>When working on site, employees should be properly equipped with adequate personal protective equipment (PPE) such as coveralls, gloves, safety boots, earplugs, dust masks, safety glasses, etc.</p> <p>Heavy vehicle, equipment and fuel storage site should be properly</p>	<p>Comprehensive health and safety plan for all exploration activities compiled.</p>	<p>Proponent</p> <p>Exploration Manager</p> <p>EHS Officer/ECO</p>	<p>Occupational Health and Safety Personnel</p> <p>Health and Safety Trainings</p>	<p>Throughout the project phase and trainings offered as and when required</p>

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>secured, and appropriate warning signage placed where visible.</p> <p>No employee should be allowed to consume alcohol or other intoxicants prior to and during working hours as this may lead to mishandling of equipment which results into injuries and other health and safety risks.</p> <p>Employees should not be allowed on site if under the influence of alcohol or any intoxicants.</p> <p>Ensure that after completion of exploration holes, drill cuttings are put back into the hole and the holes filled and levelled.</p> <p>An emergency preparedness plan should be compiled, and all personnel appropriately trained.</p> <p>The site to be equipped with "danger" or "cautionary" signs for any potential danger or risk area identified on site.</p> <p>All employees and contractors (personnel) to be trained on environmental awareness, the Proponent's internal Environmental Health and Safety Policy, Environmental Management Plan, and engagement with key</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		stakeholders, specifically the key government ministries and farmers.				
	Potential increase of prevalence of HIV and AIDS, as well as other sexually transmitted diseases (STIs) prevalence	<p>The workers should be engaged in health talks and training about the dangers of engaging in unprotected sexual relations which results in contracting HIV/AIDS and other sexual related infections.</p> <p>Provision of condoms and sex education through distribution of pamphlets. These pamphlets can be obtained from local health facilities.</p>	No new infections recorded linked to exploration workers	Proponent EHS Officer/ECO	<p>Occupational health and safety personnel</p> <p>Sex and Health Education/Awareness</p> <p>Provision of condoms at the accommodation facilities</p>	Throughout exploration phase
	Accidental fire outbreak	<p>Portable fire extinguishers should be provided on site.</p> <p>No open fires to be created by exploration personnel.</p> <p>Potential flammable areas and structures such as fuel storage tanks should be marked as such with clearly visible signage.</p>	No wildfires recorded (due to presence of workers)	Proponent EHS Officer	Fire extinguishers (1 per vehicle) and 1 per working site	Throughout exploration phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
Archaeology and heritage	Accidental disturbance and destruction of archaeological or heritage objects and sites	<p>To protect the environmental integrity of the area (Dias Point) from noise and air pollution resulting from mineral exploration we advise the proponent not to undertake exploration within 1 to 2 km from the boundaries of Dias point. As highlighted, this is to protect the delicate heritage from losing its integrity and its place as a major tourist attraction owing to being undermined by exploration and mining activities. It is also important to note that the national heritage council have the final decision regarding the permissible range of exploration in reference to the distance from heritage resources identified in this study.</p> <p>If the National Heritage council decides to issue the proponent with a consent for an ECC, it is strongly advised that the Proponent adhere to and implement the Chance Find procedures.</p> <p>As indicated in the result above, this study relied on surface-based visual observation, which means that there is a possibility that sub-surface archaeological resources</p>	Preservation of all artefacts and objects that are discovered on and around project site	<p>EHS Officer</p> <p>Operator</p> <p>Foreman</p> <p>Superintended</p> <p>Archaeologist</p>	<p>Salvage equipment</p> <p>Flag tapes</p> <p>GPS (site marking)</p>	As and when required, i.e., prior to site set up, and during exploration.

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>might be unearthed during the explorations.</p> <p>Should any subsurface heritage resources be present the damage to archaeological resources will be extensive. Therefore, the Proponent is advised to implement the following management actions.</p> <p>-Chance Finds Procedure (CFP) management guideline:</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>The EPL is an important mining infrastructure development area subject to heritage & archaeological assessment at the planning stage. These assessments were desktop based, and field surveys were carried out, therefore; significant subsurface heritage resources might be discovered. Onsite personnel and contractors must be sensitized to recognize “chance finds heritage” in the course of their work. The procedure set out here covers the reporting and management of such finds. The CFP covers the actions to be taken from the discovery of a heritage site or object to its investigation and assessment by a trained archaeologist. The CFP is intended to ensure compliance with the relevant provisions of the National Heritage Act (27 of 2004), especially Section 55 (4): “a person who discovers any archaeological objects must as soon as possible report the discovery to the council”.</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
Littering and waste management (general waste and sanitation)	Environmental Pollution	<p>Both biodegradable and non-biodegradable wastes must be stored in separate containers and collected regularly for disposal at a certified landfill/dump site.</p> <p>Any hazardous waste that may have an impact on the animals, vegetation or the environment should be handled cautiously and disposed of in accordance with hazardous waste management guidelines.</p> <p>No refuelling of vehicles on site. Refuelling should only be done in Lüderitz at a designated refuelling facility.</p> <p>Workers should be sensitized to dispose of waste in a responsible manner and not to litter.</p> <p>After each daily works, the Proponent should ensure that there are no wastes left on the sites.</p> <p>All domestic and general operational waste produced daily should be contained until such that time it will be transported to designated waste sites.</p> <p>No waste may be buried or burned on site or anywhere else.</p>	<p>No visible litter around the project area</p> <p>Provision of sufficient waste storage containers</p> <p>Waste management awareness</p>	EHS Officer/ECO	Waste storage containers	Throughout exploration phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>The exploration sites should be equipped with separate waste bins for hazardous and general waste/domestic.</p> <p>Sewage waste should be stored as per the portable chemical toilets supplied on site and regularly disposed of at the nearest treatment facility.</p> <p>Accidental oil spills should be taken care of by removing and treating soils affected by the spill.</p> <p>A penalty system for irresponsible disposal of waste on site and anywhere in the area should be implemented.</p> <p>Careful storage and handling of hydrocarbons on site is essential.</p> <p>Potential contaminants such as hydrocarbons and wastewater should be contained on site and disposed of in accordance with municipal wastewater discharge standards so that they do not contaminate surrounding soils and eventually groundwater.</p> <p>An emergency plan should be available for major/minor spills at the site during operation activities (with consideration of air,</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>groundwater, soil, and surface water) and during the transportation of the products(s) to the sites.</p> <p>After each daily works, there should not be waste left scattered on site, but rather be disposed of in allocated site waste containers.</p> <p>No waste may be buried or burned on site or anywhere else throughout the project lifecycle.</p> <p>All domestic and general waste produced daily should be contained until such that time it will be transported to designated waste sites on a weekly basis.</p> <p>The sites should be equipped with separate waste bins for hazardous and general waste/domestic.</p> <p>Hazardous waste, including emptied chemical containers should be safely stored on site until such time that they are transported to the nearby approved hazardous waste sites for safe disposal.</p> <p>A penalty system for irresponsible disposal of waste on site and anywhere in the area should be implemented</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
	Wastewater generated by exploration workers living on-site.	<p>Provision of toilet facilities for exploration workers (mobile/portable chemical toilet).</p> <p>Emptying of chemical toilets according to the manufacturer's specifications. Treating latrine waste to render non-polluting.</p>	Adequate toilet and basic ablution facilities on site.	<p>Proponent</p> <p>EHS Officer/ECO</p>	<p>Chemical toilets</p> <p>Sewage removal operator</p> <p>waste treatment agents/chemicals</p>	Throughout exploration phase
Air Quality	Dust generation	<p>The Proponent should ensure that the exploration schedule is limited to the given number of days of the week, and not every day. This will keep the vehicle-related dust level minimal in the area.</p> <p>Given the limited vegetation cover, soils are exposed, it is highly probable that more dust will be generated from exploration activities (excavating). It is, therefore, advised that during extremely windy days, a reasonable amount of water should be used to suppress the dust that may be emanating from certain exploration activities.</p> <p>Exploration vehicles should not drive at a speed more than 40 km/h</p>	<p>No complaints from the public about vehicle emissions and dust generation.</p> <p>Visible efforts to curb dust</p>	EHS Officer/ECO	<p>Complaint's logbook</p> <p>Dust suppressant (Water)</p>	Throughout exploration phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>to avoid dust generation around and within the site area.</p> <p>The Proponent should ensure that the exploration schedule is limited to the given number of days of the week, and not every day. This will keep the vehicle-related dust level minimal in the area.</p> <p>Dust control measures such as reasonable amount of water spray should be used on access roads emitting a lot of dust and near exploration sites to suppress the dust that may be emanating from certain exploration areas on the EPL.</p> <p>Dust masks, eye protective glasses and other respiratory personal protective equipment (PPE) such as face masks should be provided to the workers on site drilling areas, where they are exposed to dust.</p> <p>Drilling and excavating equipment should be regularly maintained to ensure drilling and excavation efficiency and so to reduce dust generation and harmful gaseous emissions.</p>				

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
Noise	Nuisance	<p>The transportation of exploration materials, equipment and machinery should be limited to once or twice a week only, but not every day.</p> <p>Noise from project vehicles and equipment operations' vehicles and equipment on the working sites of the EPL should be at acceptable levels.</p> <p>The exploration times should be set such that, no such activities are carried out during the night or very early in the mornings (to be limited between 8am and 5pm on weekdays).</p> <p>Exploration hours should be restricted to between 08h00 and 17h00 to avoid noise and vibrations generated by exploration equipment and the movement of vehicles before or after hours.</p> <p>When operating the excavation and drilling machinery or close to noise-producing equipment and machinery onsite, workers should be equipped with personal protective equipment (PPE) such as earplugs to reduce noise exposure. These PPE should be regularly checked/tested for</p>	Complaints from neighbouring land users about excessive noise.	EHS Officer/ECO	Complaint's logbook	Throughout exploration phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		<p>effectiveness and on detected malfunction, the PPE should be replaced as soon as possible.</p> <p>When operating the drilling machinery onsite, workers should be equipped with personal protective equipment (PPE) such as earplugs to reduce exposure to noise</p>				
PROGRESSIVE REHABILITATION AND DECOMMISSIONING PHASE						
Rehabilitation	Disturbance and damaging of land site land	<p>All drilled boreholes and excavated pits related to the project activities should be capped and backfilled, respectively.</p> <p>All waste generated and stored on site during exploration activities should be disposed of at the respective nearest solid waste management sites.</p> <p>The stockpiled topsoil should be levelled soon after completion of works at sites.</p> <p>Any temporary setup on site should be dismantled, and the area rehabilitated as far as practicable, to their original state.</p> <p>Explored areas on worksites should be progressively rehabilitated by stockpiling and backfilling.</p>	<p>Capped boreholes and backfilled pits</p> <p>No sign of waste or littering seen on site and around site areas.</p> <p>Carrying away of waste, and removal of vehicles and equipment from site</p> <p>No stockpiled topsoil (topsoil is levelled after completion of each work)</p> <p>Campsite dismantled and materials taken away from site.</p>	Proponent	<p>Excavators and other backfilling/demolishing machinery</p> <p>Record of pits excavated, and boreholes drilled (if any)</p> <p>Waste containers on sites</p> <p>Photo records of backfilled sites</p> <p>Records of finances set aside for</p>	<p>Progressive rehabilitation done throughout the exploration phase and complete decommission and rehabilitation done after completion of exploration works.</p>

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Responsible Party	Resources	Timeline
		Provision of both financial and technical resources for progressive rehabilitation.	Visible signs of stockpiled topsoil		decommissioning activities	

2.4 Monitoring Action Plans (Monitoring Plan)

To support and ensure that the proposed mitigation measures are achieving the desired results, a monitoring plan must be implemented. The monitoring action plans recommended for planned exploration works are presented in **Table 4** below.

Table 4: Monitoring Action Plans during implementation of exploration activities

Environmental Feature	Impact	Monitoring Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
Soils	Loss of topsoil	All measures should be considered to prevent the loss of topsoil	EHS Officer/ECO and Exploration Manager	weekly	Proliferation of new vehicle tracks	Rehabilitation of affected areas
Monitoring	EMP non-compliance	The ECO or the Proponent/Contractor should monitor the implementation of this EMP to ensure compliance. The ECO(s) should inspect the site throughout the exploration period and after completion.	EHS Officer/ECO	Daily	Increase in health, safety and environmental damage incidence	Daily safety talks, Remedy the consequences

Environmental Feature	Impact	Monitoring Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
Biodiversity	Loss of biodiversity	<p>Comply to marked no-go areas and avoid areas sensitive to any type of disturbance.</p> <p>Clear only footprint areas to maintain as much of the remaining natural vegetation on site and to prevent loss of habitat (if so, advised by MEFT).</p>	<p>EHS Officer/ECO</p> <p>Workers involved in this phase</p>	Weekly	Vegetation clearance outside of marked areas.	Rehabilitation of affected areas to the satisfaction of the EHS Officer
Health and Safety	Health and safety of the workers	<p>Exploration workers should be trained on how to handle materials and equipment on site (if they do not already know how to) to avoid injuries.</p> <p>Exploration equipment and materials transported to site should be securely fastened to the vehicles (trucks and cars). This is to ensure that the materials and equipment do not fall off the vehicles and cause injuries to anyone while transporting them.</p> <p>The proponent and EHS Officer/ECO should ensure that all personnel are provided with appropriate personal protective equipment (PPE), such as gloves, masks, safety boots, safety glasses and hard hats always during</p>	<p>EHS Officer/ECO</p> <p>Worker Involved in this phase</p>	Daily/Weekly	Health and safety incident	Remedy the consequences

Environmental Feature	Impact	Monitoring Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
		<p>exploration (operation) hours on site to prevent serious injuries or loss of life.</p> <p>No employee should be allowed to drink alcohol prior to and during working hours as this may lead to mishandling of equipment which results into injuries and other health and safety risks.</p>				
Neighbouring land users to the site	Disturbance	Exploration works schedule should be limited to normal working hours, between 08h00 and 17h00. This is to ensure generated noise does not become nuisance to the neighbours.	EHS Officer/ECO Exploration Manager	Weekly	A logged complaint about excessive noise	Revision of site activities
Waste	Environmental Pollution	<p>The exploration site should be always kept tidy.</p> <p>All domestic and general construction waste produced daily should be cleaned and contained daily to prevent environmental pollution.</p> <p>Separate waste containers (bins) for hazardous and domestic / general waste must be provided on site to avoid mixing of waste.</p>	EHS Officer/ECO All workers involved in this phase.	Daily	Visible litter around project site A logged complaint	Clean-up of the affected areas and ensuring exploration workers utilise waste containers provided.

Environmental Feature	Impact	Monitoring Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
Transport	Transportation of workers to and from site	Exploration project workers will be transported, in an SUV/ bus (or similar suitable passenger vehicle) to and from site prevent inhaling of dust or being exposed to blowing desert winds. No off-road driving	EHS Officer/ECO	Daily	A logged complaint about bad form of transport affecting occupational safety and health of workers	
Vehicular traffic safety	Increase in local traffic flow.	All drivers of the project vehicles should be in possession of valid and appropriate driving licenses to operate such vehicles. Project vehicles should be in a road worthy condition and serviced regularly to avoid accidents because of mechanical faults of vehicles. Vehicle drivers should not be allowed to operate vehicles while under the influence of alcohol. No heavy trucks or project related vehicles should be parked on biologically sensitive areas.	EHS Officer/ECO	Weekly	A logged complaint about traffic increase or damage to roads	Find alternative access roads for the team. Rehabilitation of affected roads

2.5 Decommissioning and Rehabilitation Phase

Successful rehabilitation requires careful consideration of the local ecological context in combination with rehabilitation goals. The most important steps in undertaking a successful rehabilitation are planning and environmental awareness (environmental education) on the importance of progressive rehabilitation (or post-activity rehabilitation) and its importance to the environment. Furthermore, to successfully implement the planned rehabilitation, practically, this will depend on a few factors, namely the rehabilitation program, characteristics of the site, nature of disturbance, rehabilitation methods, as well as resources availability.

Rehabilitation of the exploration sites may include the revegetation of bare areas with species consistent with surrounding vegetation; refilling of trenches in such a way that subsoil is replaced first, and topsoil replaces last.

Any exploration drilling holes should not only be filled with sand alone, as wind will scour the sand and re-establish the holes. Necessary landscaping of exploration areas will be undertaken upon completion of each stage of exploration (drilling, sampling, etc.).

Site Specific Rehabilitation Plan

To ensure that they do their best to rehabilitate the disturbed or explored-out site areas, the Proponent intends to:

- Utilize stockpiled subsoil and topsoil to back fill the excavated pits/trenches.
- Make financial provision that will be used for post-exploration rehabilitation program.
- Backfilling of all exploration pits and capping of boreholes with loose materials.
- Levelling of topsoil that was stockpiled for exploration purposes.
- Removal of project vehicles and equipment from the site and taken to designated parking facility off site.
- All project support structures such as ablution facility (toilet and washroom system), and storage containers/tanks shall be demolished, and the waste taken to designated sites. The site areas on which these structures were set up will be rehabilitated to pre-exploration state.
- All accumulated waste (hazardous, solid, and general) up until the cessation of exploration activities will be removed site and transported to designated off site waste management facilities.
- All drill chips/materials that will not be required for further exploration analysis will be used to backfill the boreholes.

3 ENVIRONMENTAL MONITORING AND REPORTING

To minimize the "medium" and uphold the "low" significance ratings of impacts identified and assessed in the EA report; bi-annual EMP compliance audits should be carried out during the project cycle. The first bi-annual audit exercise should be done counting 6 months from the date of ECC issuance. Monitoring reports are to be compiled and submitted to the Department of Environmental Affairs and Forestry (DEAF) for archiving. This practice will make any considerations for ECC renewal easy when it is about to expire. Therefore, the Proponent should meritoriously monitor and submit the reports to the DEA. The submission of audit reports is done in compliance with the environmental legislation and for record keeping purposes.

4 RECOMMENDATION AND CONCLUSION

It is recommended that an Environmental Clearance Certificate be issued for the proposed exploration on EPL 7874, subject to the following recommendations:

- All required permits, licenses and approvals for the proposed activities should be obtained as required (please refer to the Permitting and Licensing Table in the Environmental Management Plan (Appendix B). These include permits and licenses for land access and permission to perform exploration activities in the park as per the Tsau //Khaeb National Park Management Plan of 2012-2018, prohibited/no-go areas on the Peninsula and other sensitive areas marked inside the EPL boundaries (**Figure 2** below) as well as ensuring compliance with all these specific legal requirements.

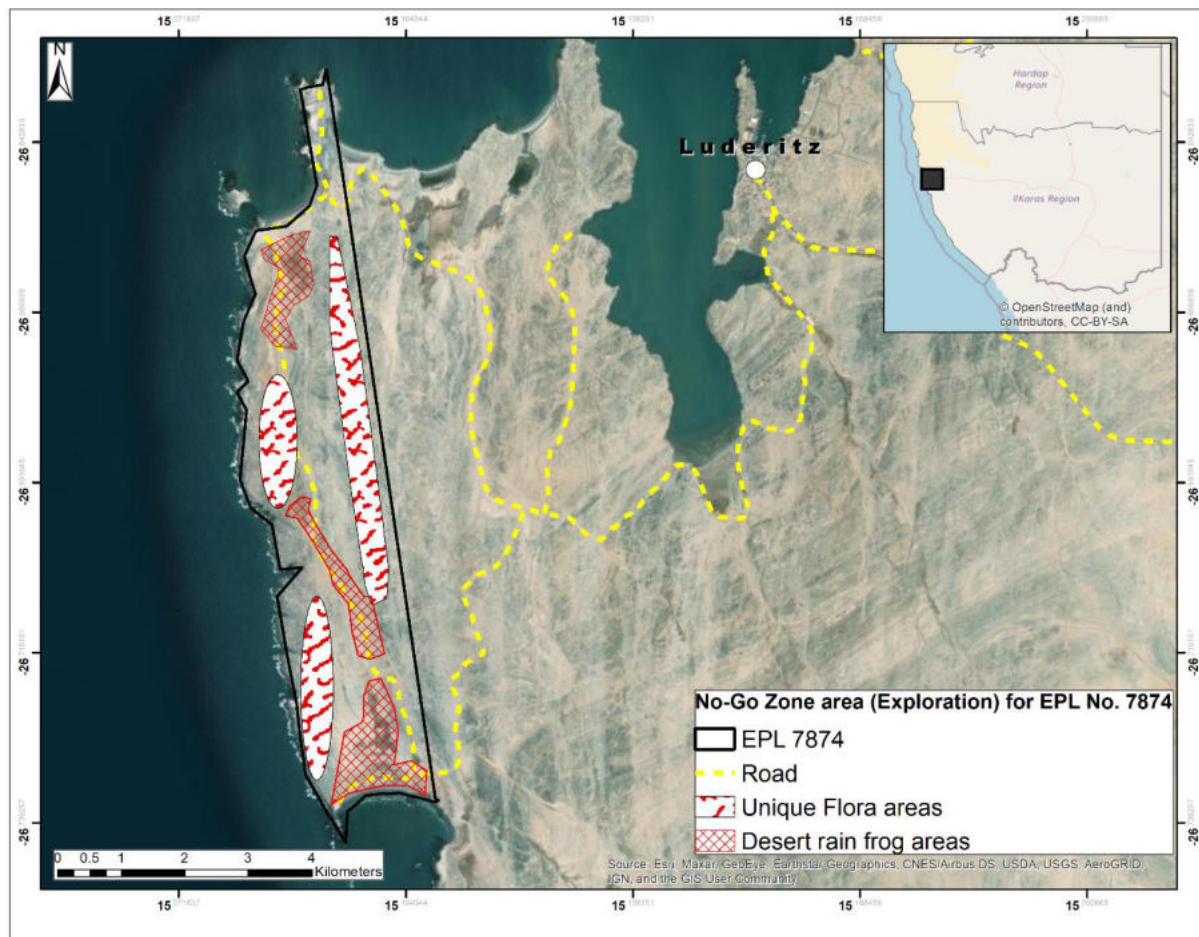


Figure 2: Location of the EPL 7874 located west of Lüderitz, in the //Karas Region

- The Proponent should comply with the operational rules and regulations of the Tsau //Khaeb National Park throughout the duration of the prospecting and exploration works.
- The Proponent complies with the legal requirements governing this type of project and its associated activities.
- All mitigations provided in this Report and the management action plans in the EMP should be implemented and monitoring conducted as recommended.
- All the necessary environmental and social (occupational health and safety) precautions provided should be adhered to.
- Site areas where exploration activities such as excavated pits and drilled boreholes have ceased should be rehabilitated, as far as practicable, to their original state.
- The monitoring of the implementation of mitigation measures should be conducted, applicable impact's actions taken, reporting done and recorded as recommended in the Draft EMP.

It is a known fact that the proposed area for exploration works is of question and therefore potential negative and positive impacts stemming from the proposed prospecting and exploration activities were acknowledged, assessed and mitigation measures made thereof. The mitigation measures indorsed in the EA report and management action plans provided in the draft Environmental Management Plan can be considered adequate to elude and/or reduce the risks to acceptable levels once there is a strict level of adherence to the proposed mitigation measures. It is also important to note that no-go zones should be marked prior to exploration works commencing upon potential issuance of the ECC. Excel Dynamic Solutions (Pty) Ltd assures that these measures are sufficient to enable environmentally sustainable and safe exploration works on the EPL 7874. Therefore, it is recommended that an ECC issued in this regard should be issued on condition that the provided management measures and action plans are effectively implemented on site and monitored. Predominantly, monitoring of the environmental components described in the EA should be conducted by the Proponent and applicable Competent Authorities. This is to ensure that all potential impacts identified in this study and other impacts that might arise during implementation are properly identified in time and addressed. Furthermore, should the ECC be issued, the proponent will be expected to be compliant with the ECC conditions as well as legal requirements governing the prospecting and exploration activities.

APPENDIX 1: CHANCE FINDS PROCEDURE (AFTER KINAHAN, 2020)

Areas of proposed development activity are subject to heritage survey and assessment at the planning stage. These surveys are based on surface indications alone, and it is therefore possible that sites or items of heritage significance will be found during development work. The procedure set out here covers the reporting and management of such finds.

Scope: The “*chance finds*” procedure covers the actions to be taken from the discovery of a heritage site or item to its investigation and assessment by a trained archaeologist or other appropriately qualified person.

Compliance: The “chance finds” procedure is intended to ensure compliance with relevant provisions of the National Heritage Act (27 of 2004), especially Section 55 (4): “*a person who discovers any archaeological objectmust as soon as practicable report the discovery to the Council*”. The procedure of reporting set out below must be observed so that heritage remains reported to the NHC are correctly identified in the field.

Responsibility:

Operator:	To exercise due caution if archaeological remains are found
Foreman:	To secure site and advise management timeously
Superintendent	To determine safe working boundary and request inspection
Archaeologist	To inspect, identify, advise management, and recover remains

Procedure:

Action by person identifying archaeological or heritage material:

- a) If operating machinery or equipment stop work
- b) Identify the site with flag tape
- c) Determine GPS position if possible
- d) Report findings to foreman

Action by foreman

- a) Report findings, site location and actions taken to superintendent
- b) Cease any works in immediate vicinity

Action by superintendent

- a) Visit site and determine whether work can proceed without damage to findings
- b) Determine and mark exclusion boundary
- c) Site location and details to be added to project GIS for field confirmation by archaeologist

Action by Archaeologist

- a) Inspect site and confirm addition to project GIS
- b) Advise NHC and request written permission to remove findings from work area
- c) Recovery, packaging and labelling of findings for transfer to National Museum

In the event of discovering human remains

- a) Actions as above
- b) Field inspection by archaeologist to confirm that remains are human
- c) Advise and liaise with NHC and Police
- d) Recovery of remains and removal to National Museum or National Forensic Laboratory, as directed.

The competent authorities' contact details to report archaeological sites or objects (Exploration Manager and contractor) are as follows:

- National Heritage Council (NHC) of Namibia (061 244 375) or direct contact with the Regional Heritage Officers at the NHC 061 301 903
- National Museum (+264 61 276800),
- National Forensic Laboratory (+264 61 240461).