

Updated Environmental Management Plan (EMP)

The Proposed Open Pit Mining Activities on Mining Licenses (MLs) No. 73B, 73C, 9, 16 and 21 located in Kombat, Otjozondjupa Region

Document Version: Updated EMP for ECC Renewal (2024)

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Appendix B: Self-Audit form for the MLs (*uploaded separately on the portal*)

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1 INTRODUCTION

1.1 Project Background

Trigon Mining (Namibia) (Pty) Ltd (The Proponent), was granted Mining Licences No. 73B, 73C, 9, 16 and 21 (**Figure 1**) by the competent authority, Ministry of Mines and Energy (MME), to enable the Proponent to carry out mining activities on the MLs. The Current Environmental Clearance Certificate (ECC) No. 1390 focuses open pit mining activities, and dewatering of underground exploration activities on the MLs. However, the Proponent have acquired an ECC which is still valid to carry out dewatering activities on the MLs. Therefore, this ECC renewal only focuses on the open pit mining activities on the MLs.

The proponent plans to carry mining activities on the MLs for Base & Rare Metals (i.e. Copper).

The Proponent had an Environmental Impact Assessment (EIA) done SLR (Namibia) (Pty) Ltd in 2021 and an ECC-1390 (**Appendix A**) was issued in 07 June 2021, and valid until 07 June 2024. However, to ensure that the mining activities on the MLs operate in a sustainable and in compliance with the environmental legislation, the Proponent contracted Excel Dynamic Solutions (Pty) Ltd (EDS) to apply for the ECC renewal on their behalf.



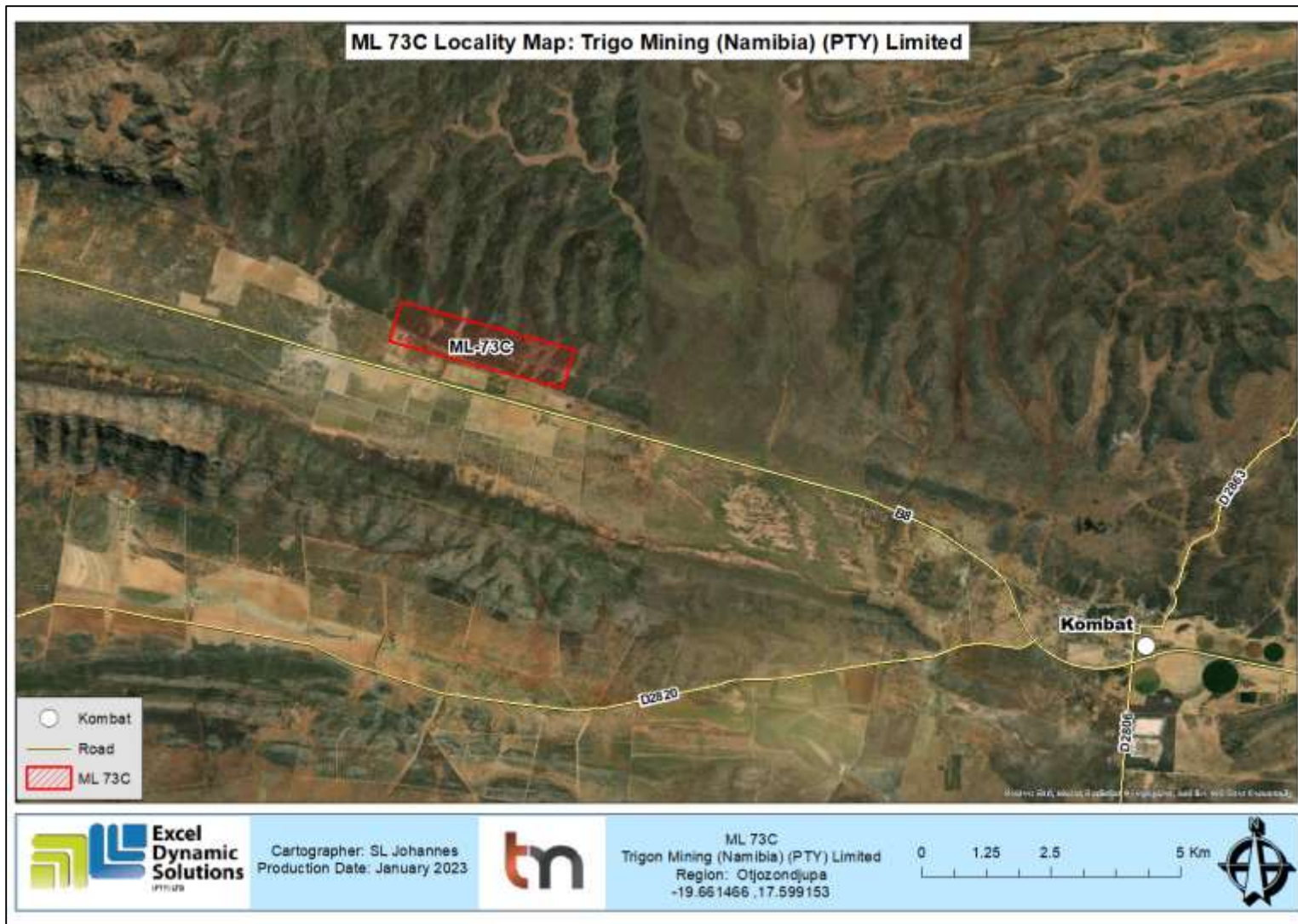




Figure 1: Location of MLs



In terms of Section 27 (1) of the Environmental Management Act (EMA) (Act No. 7 of 2007) and in line with Sections 32-37 of the EMA, the proposed mining activities on the MLs form part of the listed activities that may not be conducted without an EIA undertaken and an ECC granted. 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.*

“Water Resources Developments

- *The abstraction of ground or surface water for industrial or commercial purposes*
- *The abstraction of groundwater at a volume exceeding the threshold authorized in terms of a law relating to water resources.”*

This document has been prepared as a legal requirement to enable the renewal of the current ECC due to expire in June 2024, to ensure that the project remain compliant to the environmental legislation, and to ensure sustainability practices on the MLs. The ECC should be valid and timely renewed before it is about to expire. EDS has lodged and submitted the ECC renewal application, and subsequently, the updated EMP for the ECC renewal will be submitted to the DEAF, MEFT for the evaluation and consideration of the ECC renewal.

1.2 Aim of the updated Environmental Management Plan (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). 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. It synthesizes all the proposed management, mitigation and monitoring actions, set to a timeline and with specific assigned responsibilities. Additionally, it provides a link between the impacts identified in the EA process and the required mitigation measures. 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 addressing 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 mining activities:

- **Phase 1- Planning and Design Phase:** - This is the stage during which the Proponent prepares all the administrative and technical requirements needed for the planned mining activities. The planning includes obtaining the necessary permitting and authorization from relevant national and local stakeholders facilitating the recruitment and services and required goods procurements processes, etc., in preparation for the open pit mining activities.
- **Phase 2- Mining phase:** This is the phase at which the Proponent is carrying out mining activities on the MLs
- **Phase 3- Decommissioning and Rehabilitation:** This is the phase during which the mining activities and its associated activities on the MLs cease. The decommissioning of the activities may be considered because of poor results (depletion of Base and Rare Metals and Precious Metals) or declining in the commodity market price. Before the decommissioning phase, the Proponent will need to put 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 for use by the Proponent, employees and/or contractors, to provide management measures to be undertaken, to address the environmental impacts identified and ensure that the impacts on the environment are avoided, or limited if they cannot be avoided completely.

2 LEGAL OBLIGATIONS GOVERNING THE PROPOSED ACTIVITIES

Upon issuance of the renewed ECC and obtaining other valid and necessary required documentations, the Proponent will commence with the administrative and technical aspects needed for mining activities on the MLs. The mining and its associated activities are ought to adhere to certain local, regional, national as well as international legal framework. The legal requirements provided herein are those regarding permits or licensing required of the Proponent and/or renewal of permits throughout the phases. These legal requirements are provided under **Table 1**.

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

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). Details principles which are to guide all EIAs.	ECC Renewal and amendment, when needed: An ECC must be renewed every 3 years before its expiry date.
Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 4878)	Details requirements for public consultation within a given environmental assessment process (GN 30 S21). Details the requirements for what should be included in a Scoping Report (GN 30 S8) and an Assessment Report (GN 30 S15).	
Minerals (Prospecting and Mining) Act (No. 33 of 1992)	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.	The Proponent should ensure that all necessary permits/authorization for the MLs are obtained from the Ministry of Mines and Energy (MME), and the Proponent must ensure that the renewed ECC is submitted to MME for record keeping.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
	Section 54(2): details provisions pertaining to the decommissioning or abandonment of a mine.	
Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001)	Regulation 3(2)(b) states that “No person shall possess or store any fuel except under authority of a license 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 authorization from the Ministry of Mines & Energy for the storage of fuel onsite.
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.	The protection of employees and contractors’ labour rights and occupational health safety.
Forestry Act 12 of 2001, Amended Act 13 of 2005	Prohibits the removal of any vegetation within 100 m from a watercourse (Forestry Act S22 (1)). The Act prohibits the removal of and transportation of various protected plant species.	Should there be protected plant species, known to occur within the project boundaries, and require removal for operations to occur, a Permit should be obtained from the nearest Forestry Office (MEFT) prior to removal.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
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. Should any objects of heritage significance be identified during the site clearing and excavations, the work must cease immediately in the affected sites and the necessary steps taken to seek authorisation from the Council.	If archaeology or heritage significant are discovered on the MLs, such must be reported to the National Heritage Council of Namibia for the management of such discovery.
The National Monuments Act No. 28 of 1969	The Act enables the proclamation of national monuments and protects archaeological sites.	

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Soil Conversation Act No. 78 of 1969	The Act established to consolidate and amend the law relating to the combating and prevention of soil, the conservation, improvement and manner of use of the soil and vegetation and the protection of the water sources.	Soils on the MLs must be conserved and prevented or minimized to erosion and pollution throughout the project phases.
Public Health Act No. 36 of 1919	Section 119 states that “ no person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.”	The Proponent must ensure compliance with the provisions of these legal instruments.
Health and Safety Regulations GN 156/1997 (GG 1617)	Details various requirements regarding health and safety of laborers.	
Public and Environmental Health Act No. 1 of 2015	To provide a framework for a structured uniform public and environmental health system in Namibia; and to provide for incidental matters.	
Labour Act No. 6 of 1992	The effective implementation of the labour Act No. 6 of 1992, specifically its regulations, No. 146 Labour Act 1992: Regulations relating to the health and safety of employees at work.	The Proponent should ensure that the mining activities operate and maintenance works do not compromise the safety welfare of the workers.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Road Traffic and Transport Act No. 22 of 1999	Should the Proponent wish to undertake activities involving road transportation or access onto existing roads, the relevant permits will be required. The mitigation measures must be provided and if traffic impacts cannot be avoided.	The relevant access road permits must be therefore, be applied from the relevant offices- Road Authority and Ministry of Works and Transports.

3 APPLICABLE INTERNATIONAL STANDARDS, TREATIES, CONVECTIONS AND POLICIES

The applicable international standards, treaties, convections and policies for the project are listed in **Table 2** below.

Table 2: International Policies, Principles, Standards, Treaties and Convention applicable to the project

Statute	Provisions	Project Implications
Equator Principles	<p>A financial industry benchmark for determining, assessing, and managing environmental and social risk in projects (August 2013). The Equator Principles have been developed in conjunction with the International Finance Corporation (IFC), to establish an International Standard with which companies must comply to apply for approved funding by Equator Principles Financial Institutions (EPFIs). The principles apply to all new project financings globally across all sectors.</p> <p>Principle 1: Review and Categorization</p> <p>Principle 2: Environmental and Social Assessment</p> <p>Principle 3: Applicable Environmental and Social Standards</p> <p>Principle 4: Environmental and Social Management System and Equator Principles Action Plan</p>	<p>These principles are an attempt to: ‘...encourage the development of socially responsible projects, which subscribe to appropriately responsible environmental management practices with a minimum negative impact on project-affected ecosystems and community-based upliftment and empowering interactions.’</p>

	<p>Principle 5: Stakeholder Engagement</p> <p>Principle 6: Grievance Mechanism</p> <p>Principle 7: Independent Review</p> <p>Principle 8: Covenants</p> <p>Principle 9: Independent Monitoring and Reporting</p> <p>Principle 10: Reporting and Transparency</p>	
<p>The International Finance Corporation (IFC) Performance Standards</p>	<p>The International Finance Corporation's (IFC) Sustainability Framework articulates the Corporation's strategic commitment to sustainable development and is an integral part of the IFC's approach to risk management. The Sustainability Framework comprises IFC's Policy and Performance Standards on Environmental and Social Sustainability, and IFC's Access to Information Policy. The Policy on Environmental and Social Sustainability describes IFC's commitments, roles, and responsibilities related to environmental and social sustainability.</p> <p>As of 28 October 2018, there are ten (10) Performance Standards (Performance Standards on Environmental and Social Sustainability) that the IFC requires project Proponents to meet throughout the life of an investment. These standard requirements are briefly described below.</p> <p>Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts</p> <p>Performance Standard 2: Labour and Working Conditions</p> <p>Performance Standard 3: Resource Efficient and Pollution Prevention and Management</p> <p>Performance Standard 4: Community Health and Safety</p>	<p>The Performance Standards are directed toward clients, guiding how to identify risks and impacts, and are designed to help avoid, mitigate, and manage risks and impacts as a way of doing business sustainably, including stakeholder engagement and disclosure obligations of the Client (Borrower) concerning project-level activities. In the case of its direct investments (including project and corporate finance provided through financial intermediaries), IFC requires its clients to apply the Performance Standards to manage environmental and social risks and impacts so that development opportunities are enhanced. IFC uses the Sustainability Framework along with other strategies, policies, and initiatives to direct the business activities of the Corporation to achieve its overall development objectives.</p>

	<p>Performance Standard 5: Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement</p> <p>Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</p> <p>Performance Standard 7: Indigenous Peoples/Sub-Saharan African Historically Undeserved Traditional Local Communities</p> <p>Performance Standard 8: Cultural Heritage</p> <p>Performance Standard 9: Financial Intermediaries (FIs)</p> <p>Performance Standard 10: Stakeholder Engagement and Information</p> <p>A full description of the IFC Standards can be obtained from</p> <p>http://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-standards?cq_ck=1522164538151#ess1</p>	
<p>The United Nations Convention to Combat Desertification (UNCCD) 1992</p>	<p>Addresses land degradation in arid regions with the purpose to contribute to the conservation and sustainable use of biodiversity and the mitigation of climate change.</p> <p>The convention's objective is to forge a global partnership to reverse and prevent desertification/land degradation and to mitigate the effects of drought in affected areas to support poverty reduction and environmental sustainability</p> <p>United Nations Convention.</p>	<p>The project activities should not be such that they contribute to desertification.</p>
<p>Convention on Biological Diversity 1992</p>	<p>Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, to ensure their conservation and sustainable use.</p>	<p>Removal of vegetation cover and destruction of natural habitats should be avoided and where not possible minimized.</p>

	Promote the protection of ecosystems, and natural habitats, and the maintenance of viable populations of species in natural surroundings.	
Stockholm Declaration on the Human Environment, Stockholm (1972)	It recognizes the need for: “a common outlook and common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment.	Protection of natural resources and prevention of any form of pollution.

4 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 in **Table 3** below:

Table 3: The persons and institutions responsible for the Implementation of the Draft EMP

Role (Person and or Institution)	Responsibilities
Trigon Mining (Namibia) (Pty) Ltd (The Proponent)	<ul style="list-style-type: none"> -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 and issuing fines for contravening EMP provisions.
General Manager	<p>This individual will be responsible to ensure that all the associated works of the project are completed on time, and therefore, their responsibilities are to:</p> <ul style="list-style-type: none"> -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 provisions and if necessary, removing such individuals from the site. -Cooperate with all relevant interested and affected parties/stakeholders.

Role (Person and or Institution)	Responsibilities
	-Development and management of schedules for daily activities
Environmental Control Officer (ECO) or Safety, Health & Environmental (SHE) Officer	<p>The SHE or ECO will have the following responsibilities:</p> <ul style="list-style-type: none"> -Management and facilitation of communication between the Proponent, PR and Interested and Affected Parties (I&APs) regarding this EMP. -Conducting site inspections of all areas with respect to the implementation of this EMP (monitor and audit the implementation of the EMP). -Advising the Proponent or General Manager 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.
Public Relations Officer (PRO)	<p>The PRO will be responsible for the following tasks:</p> <ul style="list-style-type: none"> -Liaising between the affected landowners, communities and the Proponent. -Ensure effective communication with stakeholders, local communities, traditional authorities, media (if necessary) and the public. -Organising and overseeing public relations activities, Managing public relations issues. -Preparing and submitting public relations reports, if required. -Collaborating with personnel and maintaining project-related open communication among personnel.
Other responsibilities include Archaeology: Chance Finds Procedure (CFP) Implementation Roles	<ul style="list-style-type: none"> A. Operator: Exercise due caution if archaeological remains are found B. Site Manager and ECO: Secure site and advise management timeously C. Archaeologist: Inspect, identify, advise management, and recover remains.

5 ENVIRONMENTAL MANAGEMENT & MITIGATION MEASURES

The EMP includes environmental management action plan and a monitoring plan. The management action plan outlines the mitigation measures provided to the potential negative impacts associated with the proposed project. The aim of this action plan is to avoid the identified potential impacts where possible, and where avoidance is impossible, measures are provided to reduce impact significance.

5.1 Key Potential Negative Impacts

Key Identified potential negative impacts are as follows:

- Impacts on Water Resources
- Impacts on Air Quality
- General of Waste
- Impacts on Soil Pollution
- Vibrations and noise
- Occupational Health and Safety risks
- Impacts associated with Closure and decommissioning of mining works.

The features and aspects of these impacts and mitigation measures as identified in the initial EMP have been have been updated in this version.

5.2 The Updated Management and Mitigation of Potential Key Negative Impacts

The management and mitigation measures for the potential negative impacts are presented in **Table 3**.

Table 4: Management Action Plan for Planning and design and mining phase on the MLs

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
PHASE 1: PLANNING AND DESIGN PHASE					
Implementation of the EMP	Lack of EMP awareness and implications thereof	<ul style="list-style-type: none"> -Appoint a Safety, Health and Environmental Officer to manage the EMP implementation and monitoring. -A Comprehensive Health and Safety Plan for the activities must be compiled. -An EMP non-compliance penalty system must be implemented on the sites. 	- SHE/ECO/ Proponent	Continuous	Pre-activities
Authorization	Lack of Permits	-All the required agreements and licenses should be obtained prior to the commencement of mining activities. The permits and licenses agreements referred to herein include associated permits.	- Proponent (in collaboration with the General Manager, if necessary)	Once off prior to commencement of works Continuous	Throughout the planning and design phase

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
Mining equipment and machinery	Poor open pit design	- The equipment, machinery and vehicles must be properly designed and meet the international best practice and standards to ensure that there are no mechanical failures that could be avoided.	-Proponent (General Manager)	Continuous Daily	Throughout the project phase
Socio-economy	Creation of employment opportunity	- Minimize the influx of outsiders into the area for works that can be done by the locals by prioritizing the employment of more local people.	- Proponent / General Manager	monthly	Throughout the project phase

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
		<p>-Opportunities for the training of semi-skilled and unskilled workers from local communities must be maximized and employed for mining and related works.</p> <p>Procurement of goods and services:</p> <p>-Preference must be given, where practically and economically possible and feasible, to Namibian companies with strong local participation when of procuring services and goods.</p> <p>Corporate Social Responsibility/ Investment:</p> <p>-Consider providing or donating services to communities in need or by supporting their projects.</p> <p>-A practical social plan for CSR/CSI must be drafted and shared with the stakeholders.</p>			

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
		<p>Proper consultation with the local development committees to establish the priority community needs.</p> <p>-The proponent must explore ways to enhance local community benefits with a focus on well-conceived projects that are clearly aligned with local needs.</p>			
National Economic development	Failure to pay taxes and fees	- Ensure compliance with the project's requirements by the Namibia Revenue Agency and Ministry of Mines and Energy by paying taxes and energy levies, respectively.	- Proponent	Yearly	Throughout the Project phase

PHASE 2: MINING PHASE

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
Implementation of the EMP	Lack of the EMP awareness and implications thereof.	<ul style="list-style-type: none"> - All sites workers must be aware of the necessary health, safety, and environmental considerations applicable to their respective work. -EMP training must be provided to all worker on the sites. -The implementation of this EMP must be monitored. -The implementation of an EMP non-compliance penalty system. The site must be inspected, and a compliance audit must be done throughout the project activities, monthly and EMP implementation auditing must be done bi-annually. 	<ul style="list-style-type: none"> -SHE Officer - Proponent -ECO 	Daily	Throughout the project phase
Communication between the Proponent and affected communities	Lack of communications between affected communities	<ul style="list-style-type: none"> -The Proponent must compile a clear communication procedure which must include a grievance and response mechanism. -The contact details of the PRO or Community Liaison Officer must be provided to affected parties and the Kombat Settlement Office for easy communication and receiving 	<ul style="list-style-type: none"> - PRO - General Manager 	-Monthly	Throughout the project phase

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
		of grievances and complaints for addressing.			
Water Resources	Water demand and availability	<p>-Water conservation awareness and saving measures training should be provided to all the project works so that they understand the importance of conserving water and becoming accountable.</p> <p>-Water must be used efficiently, and reuse, recycling methods must be implemented as far practicable on the sites.</p> <p>Groundwater pollution monitoring:</p> <p>- External auditing of the groundwater monitoring program must be done by the external hydrogeologist annually.</p> <p>-The water samples results must be analyzed externally.</p> <p>-Boreholes in and around the Mines must be incorporated into the mine's groundwater monitoring network.</p>	- Proponent/ SHE	Daily /Weekly	Throughout the project phase

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
		<p>-At least three monitoring boreholes must be installed about 500 m downstream of the TSF.</p>			
Occupational Health and Safety	General health and Safety associated with handling of machinery and equipment for mining activities.	<p>- Provide personal with adequate and appropriate personal protective equipment (PPE) such coveralls, gloves, safety boots, earplugs, dust masks, safety glasses, etc.</p> <p>-Health and Safety induction training must be provided to all new personnel, mine visitors/inspectors and refresher training provided to all personnel on a quarterly basis, and as needed.</p> <p>- Personnel must not be allowed to consume alcohol while working nor be allowed onsite when under the influence.</p> <p>-Project personnel must 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>	General Manager/ SHE	Weekly	Throughout the drill site establishment phase

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
		<p>-An emergency preparedness plan must be compiled, and all personnel appropriately trained.</p> <p>-Heavy vehicles, equipment and fuel storage site must be properly secured and appropriate warning signage placed where visible.</p> <p>-Commitment to make provision for annual full medical check-up for all personnel at site to monitor the impact of project related activities on them.</p> <p>-Ensure that the ventilation system properly installed and frequently checked that they are working efficiently, thus, preventing untimely failure which would compromise the health and safety of the personnel.</p> <p>Potential increase of prevalence of sexual transmitted diseases:</p> <p>-Provision of condoms and sex education through distribution of pamphlets and health trainings. These pamphlets can</p>			

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
		<p>be obtained from local health facilities.</p> <p>-workers must 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>Accidental fire outbreak:</p> <p>-Potential flammable areas and structure such as fuel storage tanks must be marked as such with clearly visible signage.</p> <p>-No open fires to be created by project personnel on sites.</p> <p>-Sufficient portable, and frequently serviced fire extinguishers must be provided on the sites.</p>			
Noise and Vibration	Excessive noise and vibration	<p>-Conduct noise measurements from different prevailing noise levels and recommending appropriate mitigation measures.</p> <p>-Regular maintenance of equipment, machinery and</p>	<p>- General Manager</p> <p>- SHE</p>	Weekly	Throughout the project phase

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
		<p>vehicles to reduce noise arising from malfunctioning.</p> <ul style="list-style-type: none"> -Shut down engine vehicles, blasting equipment when not in use to reduce noise levels. -Communities must be communicated to, when conducting blasting activities. - No blasting activities are allowed to be conducted near the houses or residence as this can cause the house to collapse, which can lead to death or harm. - Workers must be provided with appropriate and sufficient PPE. 			
Littering and waste management	Environmental pollution	<ul style="list-style-type: none"> -Ensure that there is no waste left at the working sites at the end of each day. -Pollutants such as hydrocarbons must be contained on the sites and disposed of in accordance with municipal hazardous disposal standards to prevent groundwater pollution. -Burying and burning of waste onsite is prohibited. 	General Manager/ SHE	Weekly	Throughout the project phase

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
		<p>-A penalty system for irresponsible disposal of waste on sites and anywhere in the area must be implemented.</p> <p>Project personnel must be sensitized to dispose of waste in a responsible manner and not to litter.</p> <p>-Consider upgrading the Kombat dumpsite and have an environmental management plan developed for it to obtain an ECC. Given the fact that the previously used fencing material has been removed by some locals, it is recommended that steel pole fencing must be used to prevent vandalism of mesh wire.</p> <p>-Ensure careful storage and handling of fuels on the sites.</p> <p>-An emergency plan must be available for any spills at the site and during the transportation of the products such as fuel on site.</p> <p>-Open defecation is not allowed on sites.</p>			

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
		<p>-Emptying the chemical toilets according to the manufacturers specifications.</p> <p>-Provide sufficient and functioning toilet facilities for workers.</p> <p>-Wastewater must be contained on sites and disposed of in accordance with town council wastewater discharge standards to prevent groundwater pollution.</p> <p>-Sewage waste must be stored as per the portable chemical toilets supplied on the sites and regularly disposed of at the nearest treatment facility.</p>			
Soils and water resources	Soils and water resources pollution	<p>-Project personnel must be sensitized on the impact of soil pollution and advised to follow appropriate fuel delivery and handling procedures.</p> <p>-Spill control preventive measures must be in place on sites to manage soil contamination.</p> <p>-Washing of equipment contaminated by fuel must be placed at a dedicated area.</p>	-SHE	Daily	Throughout the project phase

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
		<p>-Fuel polluted rock must be cleaned up, and soils collected and transported away from the site to an approved classified hazardous waste treatment facility.</p> <p>-Drip trays must be readily available to contain accidental fuel spills.</p> <p>-Project machines and equipment must be equipped with drip trays to contain possible oil spills.</p> <p>-Develop and prepare countermeasures to contain, clean up, and mitigate the effects of an oil spill.</p> <p>-Ensure basic spill prevention, control and countermeasure (SPCC) Plan training for all personnel.</p> <p>- The TSF must be lined, so that soluble substances from the waste do not leach into the ground.</p> <p>-Should the Proponent consider discharging wastewater into the environment, they must apply and obtain an effluent</p>			

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
		discharge permit from the water environment division of MAWLR prior to discharging the effluent into the environment.			
Traffic safety	The risk of accidents	<p>-To control traffic movement in the area, deliveries from and to site must be done optimally during weekdays between 8am and 5pm.</p> <p>-Ensure that access roads are well equipped with temporary road signs conditions to cater for vehicles.</p> <p>-Drivers must drive 40km/hour and be on the lookout for people and animals on roadsides.</p> <p>-Drivers must not be allowed to operate vehicles while under the influence of alcohol.</p> <p>-Drivers must be in possession of valid and appropriate driving licenses and adhere to the road safety rules.</p>	-SHE/ General Manager	Daily	Throughout the project phase

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
Social Nuisance	Flocking of outsiders into Kombat for job opportunity	<p>-Out of area personnel who are employed at the mine must respect the local values and norms to co-live-in harmony with the local communities.</p> <p>-Invest in the training of locals and prioritize their employment for all jobs they can do to train for to reduce the number of outsiders in the Kombat.</p>	<p>- General Manager</p> <p>- SHE</p>	Monthly	Throughout the project cycle
Air Quality	Contamination	<p>-Excavating equipment should be regularly maintained to ensure excavation efficiency and so to reduce dust generation and harmful gaseous emissions.</p> <p>- The movement of mining related vehicles on unpaved access track must be limited.</p> <p>-Dust control measures may be considered to suppress dust, in the event that there are local complaints of high levels of dust generation.</p> <p>-Dust masks, eye protective glasses and other respiratory personal protective equipment (PPE) such as face masks should be provided to the</p>	-General Manager	-Daily	Throughout the project phase

Aspect	Impact	Management and Mitigation Measure(s)	Responsible Person	Monitoring	Timeline
		workers at the sites, where they are exposed to dust. - Vehicle speeds must be limited to 40km/h on access routes to limit dust.			

Decommissioning and rehabilitation measures

It should be noted that the rehabilitation of a mine after cessation of activities does not just happen right after the mining has stopped, but it is a progressive exercise that needs planning, implementation and monitoring over time. Therefore, the mine closure framework needs to be developed, once mining activities starts and regularly updated throughout the mine life.

It should be noted that the Proponent is mainly responsible for the rehabilitation of the mine and its associated infrastructure.

Table 5: Rehabilitation measures for post mining activities

Aspect	Management and mitigation Measures	Responsible Person	Timeline
Electrical cables	-The cables must be carefully dismantled and transported to the appropriate designated facilities.	-General Manager	-Upon Mine closure

<p>Finance and technical resources</p>	<p>-Develop a Mine Closure Framework update regularly throughout the mining phase.</p>	<p>- General Manager</p>	<p>- Upon Mine closure</p>
<p>Water supply systems</p>	<p>-The water supply pipelines and tanks must be disconnected and stored at a designated facilities.</p>	<p>-General Manager</p>	<p>-Upon Mine closure</p>
<p>Tailing Surface Facility (TSF)</p>	<p>-The TSF area must be treated and levelled to be used for re-vegetation. The vegetation on the TSF must be done on advice of a Botanist to select the type of vegetation to be used for rehabilitation to promote plant growth and reduce visual nuisance of the TSF.</p> <p>-Topsoil associated with the TSF must be levelled.</p>	<p>- General Manager</p>	<p>-Upon mining closure</p>
<p>Infrastructures</p>	<p>-Backfill excavations of disturbed infrastructure footprint areas through a cut to fill action.</p> <p>-Shape and profile the disturbed surface areas to match surrounding topography and to ensure free drainage, thus limiting run-off erosion.</p> <p>-With the help of a Botanist, establish vegetation species that mimic the surrounding flora by collecting seed from pristine bush and shrub land and</p>	<p>-General Manager</p>	<p>-Progressively after closure</p>

	<p>actively planting before the wet season.</p> <p>-Remove all equipment for infrastructure to remain and to be transferred, and finalize agreements with third parties, along with transfer schedule.</p> <p>-Dismantle infrastructure such as offices, tanks, ablution container, water storage container/tank.</p> <p>-Obtain legal authorisation for infrastructure to remain and be transferred, and finalise agreements with third parties, along with transfer schedule.</p>		
<p>Groundwater and surface management and monitoring</p>	<p>-Continue with the monitoring of groundwater at least for a period of 2 years or as further required by the MAWLR to monitor the recovery of the aquifer post-cessation of mining related activities</p>	<p>-General Manager</p>	<p>-Upon mine closure</p>

5.3 Environmental and Social Management Action

The updated EMP is responsible for monitoring the indicators as well as the timeframes for the environment and social aspect associated with the project. This is to ensure that the EMP implementations are clearly outlined, and all the implementations are involved in the project cycle. The environmental and social actions are enforced to comply with the activities which are governing the applicable national legislations and to reduce the adverse impacts.

5.4 Monitoring of EMP Implementation and ECC Renewal

The annual environmental monitoring compliance of the EMP implementation must be undertaken throughout the project cycle. The Proponent must keep an environmental Impact Indicator Checklist that must be used by the ECO and updated accordingly (**Appendix C**).

5. Recommendations and Conclusions

EDS is assured that the potential negative impacts associated with the mining activities on the MLs must continue to be mitigated by effectively implementing the mitigation measures. Therefore, it is recommended that the project and its related activities on the MLs be granted a new ECC, on conditions that:

- The workers and/ or contractors comply with the national legal requirements governing the mining activities.
- All permits, licenses, and approvals required, for the mining activities are obtained.
- The ECC is compliant with the Environmental laws, and that the Proponent must effectively conduct the EMP monitoring compliance.
- All the environmental and social precautions provided are adhered to.

The Proponent have been in compliance with the implementation of the EMP throughout the project cycle, therefore, EDS recommends that the ECC should be renewed to allow the Proponent to continue with the mining activities on the MLs before the expiry of the current ECC. However, it is strongly advised that the Proponent must continue with implementation of the EMP and the recommendations outlined in the EMP must be adhered to.

Appendix C: 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.

Manager/Supervisor must report the finding to the following competent authorities:

- National Heritage Council of Namibia (061 244 375 / Technical Office +264 61 301 903)
- National Museum (061 276800),
- National Forensic Laboratory (061 240461).

Archaeological material must NOT be touched. Tempering with the materials is an offence under the heritage act and punishable upon conviction by the law.

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, advice 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.

