ENVIRONMENTAL ASSESSMENT FOR THE EXCLUSIVE PROSPECTING LICENSES NO. 6534, 6535 AND 6536 IN OMARURU DISTRICT IN THE ERONGO REGION, NAMIBIA

ENVIRONMENTAL MANAGEMENT PLAN – FINAL

ECC Application Reference: 001807

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1 INTRODUCTION

1.1 Project Background

Kongom Group (Pty) Ltd (hereinafter referred to as the Proponent), has been granted with Exclusive Prospecting Licenses (EPLs) 6534, 6535 and 6536, by the Ministry of Mines and Energy (MME). The tenures of these licenses are from August 2017 and are valid until August 2020; as per the information available on the Namibia Mining Cadastre Portal. The renewal application is submitted to MME. Furthermore, the Proponent intends to acquire an Environmental Clearance Certificate (ECC) to be able to conduct prospecting and exploration activities on the EPLs. The Proponent focuses on acquisition, exploration and development of mineral resources in Namibia. The area earmarked for proposed exploration activities are shown in **Figure 1.**

In terms of Sections 27 and 32-37 of the Environmental Management Act (EMA), No. 7 of 2007 and in line with regulations for the implementation of the EMA as gazetted in February 2012, some activities as listed may not be carried out without an Environmental Impact Assessment (EIA) being undertaken to obtain an ECC. 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.*

The exploration and prospecting activities on EPLs 6534, 6535 and 6536 form part of the listed activities. It is to this premise that the compilation of this Environmental Management Plan (EMP) was conducted as one of the requirements (scope of work) presented to Excel Dynamic Solutions (Pty) Ltd (Consultant) on appointment by the Proponent. It is required of the Environmental Consultant (Environmental Assessment Practitioner (EAP)) to comply with the EMA and provide for the following:

- Produce an explicit Environmental Management Plan 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.

- Clearly elucidate in the EMP the roles and responsibilities of the Proponent, the contractors and any other identified stakeholders.

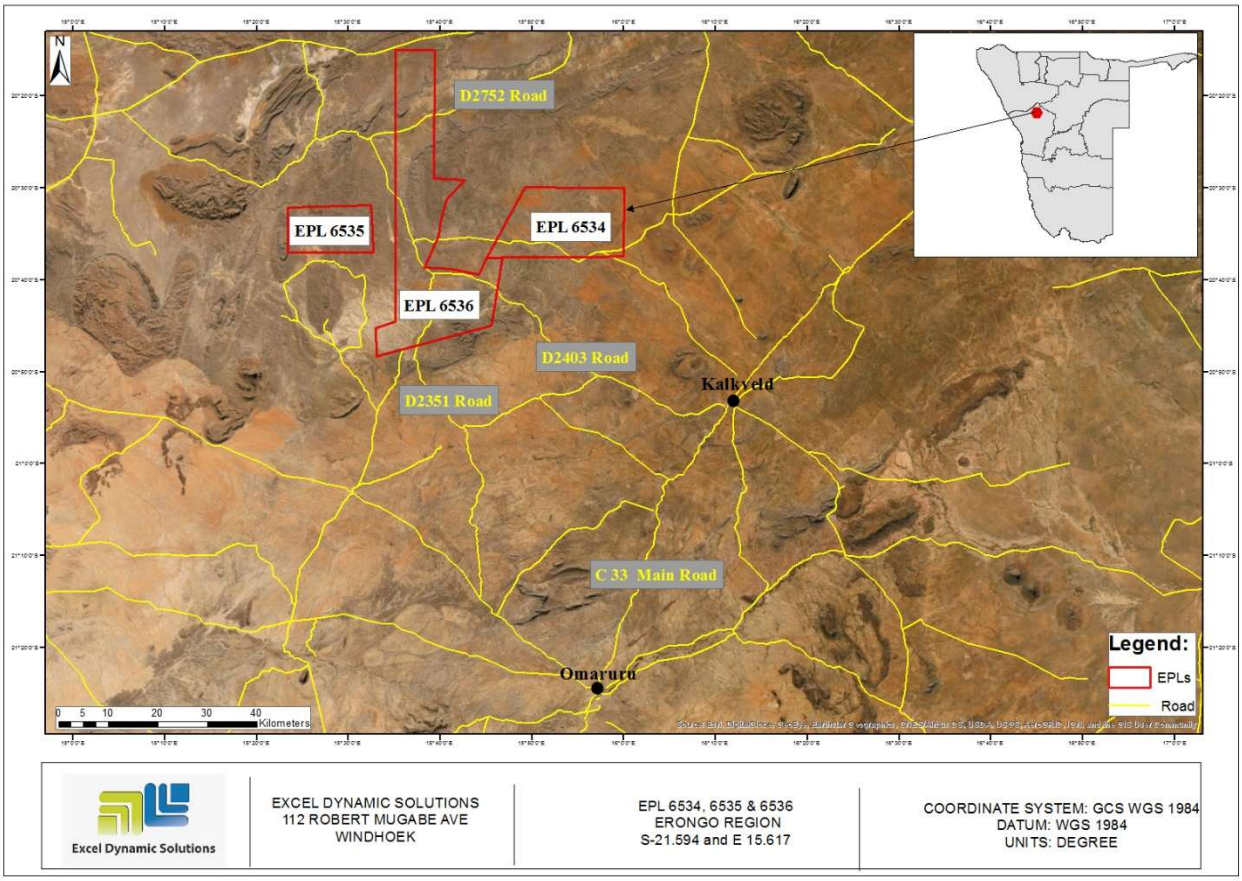

Figure 1: The site location for the proposed project

1.2 Aim of the Draft Environmental Management Plan (EMP)

Regulation 8 of the EMA, 2007 and its EIA Regulations (2012) requires that a draft EMP be included as part of the Environmental Assessment (EA) process. A '**Management Plan**' is defined as:

"…a plan that describes how activities that may have significant 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 of 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 EIA process and the

required environmental management on the ground during project implementation and 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 should be amended to adapt to address project changes and/or environmental conditions and feedback from compliance monitoring.

The purpose of this document is to provide a guideline to environmental management throughout the different phases of the proposed development, namely: operation and maintenance; and decommissioning phases:

- **Operation and Maintenance:** This is the phase where the proponent will do exploration and prospecting for the three (3) groups of commodities and undertaking allied activities on site. It is also the phase during which maintenance of the area, equipment and machinery is done by the Proponent.
- **Environmental Monitoring Requirements:** In order to support and ensure that the proposed mitigation measures are adhered to achieve the desired results, a monitoring plan must be implemented alongside the mitigation plan.
- **Decommissioning and Rehabilitation** – This is the phase where exploration activities on the EPLs will be ceased. The decommissioning of the explorations may be considered as a result of poor exploration or declining of the focus products market price. Before decommissioning phase, the Proponent need to put site rehabilitation measures in place. Stockpiling of top soil for rehabilitation at a later stage will be undertaken, where necessary. Furthermore, upon the completion of each phase of exploration (drilling, sampling etc.), landscaping of exploration areas will be undertaken.

This draft EMP will 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 impacts on the environment that have been identified in the Scoping Report; and to ensure that the impacts on the environment are avoided or limited if they cannot be avoided completely.

1.3 Appointed Environmental Assessment Practitioner

In order to satisfy the requirements of the EMA and its 2012 EIA Regulations, the Proponent appointed Excel Dynamic Solutions Pty Ltd (Consultant hereafter)) to conduct the required EIA process on their (Proponent's) behalf. The findings of the EIA process are incorporated into this report and the draft EMP will be submitted as part of an application for an ECC to the Environmental Commissioner at the Department of Environmental Affairs (DEA) in the Ministry of Environment, Forestry and Tourism (MEFT).

The EIA project is headed by Mr. Nerson Tjelos, a qualified and experienced Geoscientist and experienced EAP. The consultation process and reporting are done by Ms. Althea Brandt with support from Mr. Silas David. Mr. Nerson Tjelos and Ms. Rose Mtuleni contributed to the report reviews.

1.4 Details of the Project Proponent

The details of the Proponent are presented in **Table 1** below.

Table 1: Proponent contact details and purpose of the required ECC

Full name of Proponent	Physical Address & Contact number	Postal Address	ECC Application for:
Kongom Group (Pty) Ltd	10b Southport Complex Cnr of Mandume Ndemufao & Hosea Kutako Drive Southern Industry Telephone: +264 61 306501/5	P.O. Box 21935, Windhoek	Exclusive Prospecting Licenses (EPLs) No's. 6534, 6535 & 6536 located near Omaruru District in the Erongo Region, Namibia

1.5 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 implementation.

The Proponent therefore has the responsibility to ensure that the exploration activities as well as the EIA process conform to the principles of EMA and must ensure that employees act in accordance with such principles. **Table 2** below lists the requirements of an EMP as stipulated by Section 8 (j) of the EIA Regulations, primarily on specific approvals and permits that may be required for the prospective activities.

Table 2: Applicable legal requirements and permits to the activities of EPLs 6534, 6535 & 6536

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 EAs.	The EMA and its regulations should inform and guide this EA process. Should the ECC be issued to the Proponent, it should be renewed every 3 years, counting from the date of issue. Contact details at the Department of Environmental Affairs (DEA), Ministry of Environment, Forestry and Tourism (MEFT) Contact person(s) at MEFT and their details: **Mr. Damian Nchindo or Mr. Josafat Hiwana** (Chief and Senior Conservation Scientists and EIA Report Reviewers/evaluators) Tel: +264 61 284 2717 / +264 61 284 2962 Email: damian.nchindo@met.gov.na and
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).	

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
		josafat.hiwana@met.gov.na, respectively
Minerals (Prospecting and Mining) Act (No. 33 of 1992)	Section 48 (3): In order 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. Section 54 (2): details provisions pertaining to the decommissioning or abandonment of a mine	The Proponent needs to conduct an EA for their proposed operations. Furthermore, the Proponent needs to plan rehabilitation actions for future mine decommissioning. The Proponent should ensure that all the necessary permits/ authorisation for this scale of mining (if any) are obtained from the Ministry of Mines and Energy (MME) Contact person and details at the MME (Mining Commissioner) **Mr. Erasmus Shivolo** Tel: +264 61 284 8167 Email: Erasmus.Shivolo@mme.gov.na
Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001)	Regulation 3 (2) (b) states that "No person shall posses [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 form 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

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
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
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 transport of various protected plant species.	Should there be protected plant species, which are known to occur within the project sites, these are required to be removed, a permit should be obtained from the nearest Forestry office (Ministry of Environment, Forestry and Tourism (MEFT)) prior to removing them. Contact Details at MEFT (Director of Forestry) **Mr. Joseph Hailwa** Tel: +264 61 208 7663 Email: Joseph.Hailwa@mawf.gov.na

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
National Heritage Act No. 76 of 1969	Call for the protection and conservation of heritage resources and artefacts.	Should any archaeological material, e.g. bones, old weapons/equipment etc be found on the exploration site, work should stop immediately and the National Heritage Council of Namibia must be informed as soon as possible. The Heritage Council will then decide to clear the area or decide to conserve the site or material. Contact Details at National Heritage Council of Namibia **Mr. Salomon April or Dr. Alma Nankela** Tel: +264 81 244 375
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

1.6 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 prospecting and exploration of base metals near Omaruru District in Erongo Region. **No detailed specialist study was included as part of the environmental assessment**.
- The mitigation measures recommended in this EMP document are based on the risks/impacts in the EIA Report which were identified based on the project description as provided by the Proponent, site investigations and the public input. Should the scope of

the proposed project change, the risks/impacts will have to be reassessed and mitigation measures provided accordingly.

The following section presents the project's roles and responsibilities to be assigned as deemed necessary by the Proponent pertaining to the implementation of this document.

2 EMP ROLES AND RESPONSIBILITIES

The Proponent is ultimately responsible for the implementation of the EMP. Alternatively, 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 and Monitoring authority (Ministry of Environment, Forestry and Tourism: Department of Environmental Affairs (DEA)): Responsible for enforcing compliance with the EMA Act, 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 of operation and maintenance phase activities, decommissioning and rehabilitation, 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 Proponent may decide to assign the role of a PR to one person for both phases or a PR may be appointed to manage the EMP aspects for each project phase. The PR's responsibilities 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 is completed on time as appointed by the proponent. The manager's duties and responsibilities will include:

- Ensure that the relevant commitments contained in the EMP Action Plans are adhered to.
- Ensure relevant staff is trained in procedures.
- Maintain records of all relevant environmental documentation.
- 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.

Alternatively, the Proponent may delegate an external/internal Environmental Officer (ECO) or Safety, Health and Environmental (SHE) Officer to ensure EMP compliance throughout the project life cycle.

Environmental Control Officer (ECO) or Environmental, Health, Safety (EHS) Officer: The Proponent should assign the responsibility of overseeing the implementation of the whole EMP to a designated member of staff or external qualified and experienced person, referred to in this EMP as the Environmental Control Officer (ECO) or Safety, Health and Environment (SHE) Officer. The ECO will have the following responsibilities:

- Management and facilitation of communication between the Proponent, PR and Interested and Affected Parties (I&APs) with regard to 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.

2.1 Management of Key Potential Environmental Impacts

From the assessment conducted, the following key potential negative impacts have been identified per project phase and are summarized in **Table 3** below.

Table 3: Summary of key potential environmental impacts per project phase

	Project Phase	Potential negative impacts identified in the EA
1	Prospecting and Initial Exploration (Operation and Maintenance)	Health and safety, visual, waste, noise.

	Project Phase	Potential negative impacts identified in the EA
2	Advanced Exploration, Sampling and Drilling (Operation and Maintenance)	The monitoring of exploration work impact in remote locations can be problematic due to difficulties of access.
3	Decommissioning and Rehabilitation	Loss of employment by workers at the exploration and prospecting site and contribution to the national economy.

2.2 Aim of the EMP 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 exploration activities were based on the three project phases listed below:

- Operation phase (**Table 4**)
- Monitoring (**Table 5**)
- Decommissioning and Rehabilitation

2.3 Operation Phase Management Action Plans

The management action plans recommended for this phase are presented in **Table 4** below.

Table 4: Management action plans for the Operation and Maintenance Phase

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Timeframe (When?)
EMP training	Lack of EMP awareness and the implications thereof	• All personnel should be educated about the necessary health, safety and environmental considerations applicable to their respective works.	Proponent: ECO/SHE Officer	Prior to site setup activities Ongoing
Monitoring	EMP non-compliance	• The implementation of this EMP should be monitored. • An EMP non-compliance penalty system should be implemented on site	Proponent: ECO/SHE Officer	During the course of the exploration operation phase
Biodiversity	Loss of biodiversity	• Vegetation found on the site, but not in the targeted areas of exploration should not be removed, but left to preserve biodiversity on the site. • Even if a certain shrub or tree is found along exploration spots on sites, this does not mean that it should be removed. Therefore, care should be taken during exploration and prospecting activities.	ECO/SHE Officer/ Site Manager/ Personnel	During the course of the exploration operation phase

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Timeframe (When?)
		• Where vegetation clearing and/or damage is unavoidable, permits for clearing protected plant species should be obtained from the nearest Forestry office. These permits can be obtained either from the Omaruru Forestry office. • Environmental awareness on the importance of biodiversity preservation should be provided to the workers. • Personnel should refrain from damaging or cutting down vegetation that is not within the exploration site footprints and not necessarily require removal for the activities. • The movement of vehicles and machinery should be restricted to existing roads and tracks to prevent unnecessary damage to the vegetation. • No personnel are allowed to without permission cut down or damage trees belonging to the landowners.		
Air Quality	Generation of dust and emissions of hydrocarbons from vehicles	• The exploration schedule should be limited to between 08h00 and 17h00 in order to keep the vehicle-related to dust level minimal in the area. • Vehicles and machinery on site should be serviced regularly to prevent emission of harmful gases.	Proponent Manager / SHE Officer	During the course of the exploration operation phase

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Timeframe (When?)
		• Vehicle and machinery on site should be serviced regularly to prevent emission of harmful.		
Waste Generation	Environmental Pollution	• Workers should be sensitized to dispose of waste in a responsible manner and not litter. • After each daily works, the Proponent should ensure that there are no wastes left on site. • All domestic and general operational waste produced on a daily basis should be contained until such that time it will be transported to designated waste sites. • No waste may be buried or burned on site or anywhere else. • The exploration site(s) should be equipped with separate waste bins for hazardous and general waste/domestic. • A penalty system for irresponsible disposal of waste on site and anywhere in the area should be implemented.	ECO/Site Manager, Personnel	Throughout the exploration operation phase
Visual (sense of place)	Visual	• All the necessary options to improve the aesthetic of the site should be considered and incorporated in the exploration activities.	Proponent	During the course of the exploration operation phase and ongoing

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Timeframe (When?)
		• The Proponent should consider the implementation of continuous rehabilitation programme, by using overburden waste rocks.		
Potential Health and Safety Risks	Health and safety of the workers	• As part of their induction, the workers should be provided with an awareness training of the risks of mishandling equipment and materials on site. • When working on site, employees should be properly equipped with personal protective equipment (PPE) such as coveralls, masks, gloves, safety boots, earplugs, safety glasses, etc. • 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. • Employees should not be allowed on site if under the influence of alcohol.	Proponent	Prior to site setup activities and required during this phase
Soils	Land Degradation	• Overburden material (if any) should be handled more efficiently to avoid erosion when subjected erosional processes.	ECO	During the course of the exploration operation phase and ongoing

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Timeframe (When?)
		• Prevent the creation of huge piles of waste rocks by performing sequential backfilling. • Site soils should not be disturbed, if not needed. • Preventative measures should be put in place to manage soil contamination with spill, not matter how small the amount of pollution (spill) may occur.		
Groundwater	Groundwater contamination/pollution	• Careful storage and handling of hydrocarbons on site is essential. • Potential contaminants such as hydrocarbons and waste water should be contained on site and disposed of in accordance to municipal wastewater discharge standards so that they do not contaminate surrounding soils and eventually groundwater. • An emergency plan should be available for major / minor spills at the site during operation activities (with consideration of air, groundwater, soil and surface water) and during the transportation of the product(s) to the sites	ECO	During the course of the exploration operation phase and ongoing

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Timeframe (When?)
Archaeology and cultural heritage	Potential disturbance to archaeological and cultural heritage resources	• The Proponent should consider having a qualified and experienced Archaeologist on standby during the entire operational phase. This action will be to assist on the possible of uncovering of sub-surface graves or other Cultural/heritage objects and advice the Proponent accordingly. • Identified graves or any archaeological significant objects on the site should not be disturbed, but are to be reported to the project Environmental officer or National Heritage Council offices.	ECO	Prior to site setup activities and ongoing observations
HIV and AIDS	Potential increase of prevalence of HIV and AIDS, as well as other STIs prevalence	• 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 • Provision of condoms and sex education through distribution of Pamphlets. These pamphlets can be obtained from local health facilities.	SHE Officer	Ongoing

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Timeframe (When?)
Noise	Nuisance	• Noise from operations vehicles and equipment on site should be reduced to acceptable levels. • The prospecting operational times should be set such that, no mining activity is carried out during the night or very early in the mornings. • Mining hours should be restricted to between 08h00 and 17h00 to avoid noise generated by exploration equipment and the movement of vehicles before or after hours. • When operating the drilling machinery onsite, workers should be equipped with personal protective equipment (PPE) such earplugs to reduce noise exposure.	Proponent	Ongoing
Employment	Labour recruitment	• Preference for casual works during operational phase should be given to locals in Omaruru and sorroundings.	Proponent: Human Resources department	

2.4 Monitoring Phase Management Action Plans

In order to support and ensure that the proposed mitigation measures are achieving the desired results, a monitoring plan must be implemented. The management action plans recommend for exploration and prospecting work are presented in **Table 5** below.

Table 5: Management action plans for the Monitoring Phase

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
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.	ECO / SHE Officer	Daily	Increase in health, safety and environmental damage incidence	Daily safety talks, Remedy the consequences
Health and Safety	Health and safety of the workers	• Exploration workers should be trained on how to handle materials and equipment on site (if they do not already know how to) in order to avoid injuries. • Exploration equipment and materials	Proponent: ECO/ Environmental, Health and Safety Officer	Daily / Weekly	Health and safety incident	Remedy the consequences

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
		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. • The proponent and ECO/SHE Officer should ensure that all personnel are provided with appropriate personal protective equipment (PPE), such as gloves, masks, safety boots, safety glasses and hard hats at all times during operation hours on site				

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
		to prevent serious injuries or loss of life • 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.				
Soils	Loss of top soil	• All measures should be considered to present the loss of top soil.	SHE Officer/ Site Manager	weekly	Proliferation of new vehicle tracks	Rehabilitation of affected areas
Groundwater	Groundwater pollution	• Careful storage and handling of hydrocarbons on site is essential. • Potential contaminants such as hydrocarbons	Proponent: ECO Site Manager	Daily/weekly	Contaminated/polluted area is marked for immediate treatment and issue logged	Treatment of affected areas

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
		and waste water should be contained on site and disposed of in accordance to municipal wastewater discharge standards so that they do not contaminate surrounding soils and eventually groundwater.				
Biodiversity	Loss of biodiversity	• Clear only footprint areas to maintain as much of the remaining natural vegetation on site and to prevent loss of habitat outside	Proponent: ECO Workers involved in this phase	Weekly	Vegetation clearance outside of marked areas.	Rehabilitation of affected areas to the satisfaction of the SHE Officer
Neighbours to the site	Disturbance	• Exploration works schedule should be limited to normal working hours, between 08h00 and 17h00. This	Proponent: ECO Site Manager	Weekly	A logged complaint about excessive noise	Revision of site activities

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
		is to ensure generated noise does not.				
Waste	Environmental Pollution	• The exploration site should be kept tidy at all times. • All domestic and general construction waste produced on a daily basis should be cleaned and contained daily to prevent environmental pollution. • Separate waste containers (bins) for hazardous and domestic / general waste must be provided on site to avoid mixing of waste	Proponent: ECO/SHE Officer Workers involved in this phase	Daily	Visible littering around project site A logged complaint	Clean-up of the affected areas and ensuring workers utilise waste containers provided.

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
Transport		• Exploration project workers will be transported, in an SUV/ bus (or similar suitable passenger vehicle) to and from site prevent inhaling of dust.	Proponent: ECO/ SHE Officer	Daily	A logged complaint about bad form of transport	
HIV and AIDS or STIs infections	Potential increase in HIV and AIDS prevalence	• To prevent new infections in the area.	SHE Officer	Monthly		
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	Proponent: ECO/ SHE Officer	Weekly	A logged complaint about traffic increase or damage to RA roads	Find alternative access roads for the team. Rehabilitation of affected roads

Environmental Feature	Impact	Management Actions	Responsible person(s) / Implementation responsibility	Frequent	Threshold	Action if threshold is exceeded
		regularly in order to avoid accidents as a result 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 next to the residents' properties or obstruct the local traffic in any way.				

2.5 Decommissioning and Rehabilitation Phase

Decommissioning and rehabilitation will involve the following:

- Leveling the stockpiled top soil during exploration activities.

- Collecting and disposing domestic waste at a nearest landfill/dumpsite.
- Capping or backfilling of all drilled holes with loose materials.
- Any temporal setup of Site office should be dismantled, and the area should be rehabilitated as far as possible to its original state.

3 ENVIRONMENTAL MONITORING

In order to reduce the impacts identified and assessed in the EIA report from “medium" and uphold the "low" significance ratings. Bi-annual EMP compliance audits should be carried out during the course of 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 DEA for archiving. This practice will make the ECC renewal easy when it is about to expire. Therefore, the Proponent should meritoriously monitor and submit the reports to the DEA. The submission is not only done for record keeping purposes, but also in compliance with the environmental legislation.

4 CONCLUSION

Potential negative and positive impacts stemming from the proposed prospecting and exploration activities were acknowledged, assessed and mitigation measures made thereof. The mitigation measures and recommendations provided in this EMP and the management action plans provided thereof can be deemed sufficient to avoid and/or reduce (where impact avoidance is impossible) the risks to acceptable levels. Therefore, Excel Dynamic Solutions (Pty) Ltd assures that these measures are sufficient and thus recommends that the proponent be issued with the Environmental Clearance Certificate (ECC) to enable the exploration work on the EPLs. However, the ECC should be issued on a condition that the provided management measures and action plans are effectively implemented on site and monitored. Most importantly, monitoring of the environmental components described in the impact assessment chapter should be conducted by the Proponent and applicable Competent Authority. This is to ensure that all potential impacts identified in this study and other impacts that might arise during the exploration and prospecting operation are properly identified in time and addressed. Lastly, should the ECC be issued, the Proponent will be expected to be compliant with the ECC conditions as well as legal requirements governing the exploration and related activities.