



山金国际
SHANJIN INTERNATIONAL

OSINO
RESOURCES

Submitted to: Osino Gold Exploration and Mining (Pty) Ltd
Attention: Mr Ralf Schommarz

13 Feld Street
P O Box 34891
Windhoek
Namibia

REPORT:

TWIN HILLS GOLD PROJECT – CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

PROJECT NUMBER: ECC-103-586-01-A
REPORT VERSION: REV 02
DATE: 21 FEBRUARY 2025



TITLE AND APPROVAL PAGE

Project Name: Twin Hills Gold Project – Construction Environmental Management Plan

Client Company Name: Osino Gold Exploration and Mining (Pty) Ltd

Client: Mr Ralf Schommarz

Status of Report: Final

Project Number: ECC-103-586-01-A

Date of issue: 21 February 2025

Review Period N/A

ENVIRONMENTAL COMPLIANCE CONSULTANCY CONTACT DETAILS:

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



Environmental Compliance Consultancy (Pty) Ltd
P O Box 91193, Klein Windhoek, Namibia
Tel: +264 81 669 7608
Email: info@eccenvironmental.com

Quality Assurance

Authors:



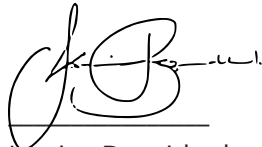
Samuel Shinyemba
Environmental Compliance Consultancy

Checked By:



Luke Towers
Environmental Compliance Consultancy

Approved By:



Jessica Bezuidenhout
Environmental Compliance Consultancy

DISCLAIMER

The report has been prepared by Environmental Compliance Consultancy (Pty) Ltd (ECC) (Reg. No. 2022/0593) on behalf of the Proponent. Authored by ECC employees with no material interest in the report's outcome, ECC maintains independence from the Proponent and has no financial interest in the Project apart from fair remuneration for professional fees. Payment of fees is not contingent on the report's results or any government decision. ECC members or employees are not, and do not intend to be, employed by the Proponent, nor do they hold any shareholding in the Project. Personal views expressed by the writer may not reflect ECC or its client's views. The environmental report's information is based on the best available data and professional judgment at the time of writing. However, please note that environmental conditions can change rapidly, and the accuracy, completeness, or currency of the information cannot be guaranteed.

TABLE OF CONTENTS

1	Introduction	8
1.1	Project background	8
1.2	Environmental regulatory requirements.....	9
1.3	Purpose of this report.....	9
1.4	Limitations, uncertainties and assumptions of this CEMP	9
1.5	Environmental assessment practitioner.....	10
2	Project management and personnel	11
2.1	Management of this CEMP	11
2.2	Domains and domain environmental schedules	11
2.3	Organisational structure, roles and responsibilities	13
2.4	Contractors and subcontractors.....	16
2.5	Employment	17
3	Communication and training.....	18
3.1	Introduction	18
3.2	Communications: internal.....	18
3.2.1	Environmental communications.....	18
3.2.2	Meetings	18
3.3	Communications: external	19
3.3.1	Community.....	19
3.3.2	Other stakeholders.....	19
3.4	Complaint handling and recording	19
3.5	Training and awareness.....	20
3.5.1	Site Induction	20
3.5.2	Specialist briefings.....	21
4	Reporting, compliance and enforcement.....	22
4.1	Environmental permits and licences.....	22
4.2	Environmental performance management	23
4.2.1	Summary of environmental risks and mitigation measures.....	23
4.3	Environmental inspections and compliance monitoring.....	23
4.3.1	Daily compliance monitoring	23
4.3.2	Monthly compliance monitoring.....	23
4.3.3	Inspection of machinery and equipment	24
4.3.4	Annual compliance monitoring.....	24
4.4	Reporting.....	24
4.4.1	Non-compliance.....	25

4.4.2	Disciplinary action.....	26
4.5	Penalties	26
4.6	Control of records	27
5	Construction environmental management	28
5.1	Objectives and targets	28
5.2	Method statement and risk assessment	28
5.3	Construction quality control points.....	28
5.4	Project close	29
5.5	Construction environmental management activities.....	29
5.5.1	Worker campsite and management.....	29
5.5.2	Establishment and management of construction site	30
5.5.3	Vegetation, topsoil and subsoil stripping	31
5.5.4	Weed and seed inspection and certificates.....	31
5.5.5	Silt control and contingency plan	31
5.5.6	Management of archaeological sites and objects.....	32
5.5.7	Risks to the terrestrial environment and fluvial systems	32
5.5.8	Solid waste management	33
5.5.9	Pollution control and contingency plan	34
5.5.10	Community nuisance and hazards	36
5.5.11	Fire prevention	37
5.5.12	Environmental monitoring.....	38
5.6	Environmental emergency plan.....	38
5.6.1	Environmental emergency and response contacts.....	39
6	Register of environmental risks and issues	40
6.1	Introduction	40
7	Implementation of the CEMP.....	55

LIST OF FIGURES

Figure 1 – Tenement boundaries of ML 238 (red polygon), surrounding towns, rivers and national roads	8
Figure 2 – Incident reporting structure overview	25

LIST OF TABLES

Table 1 – Twin Hills Gold Mine Environmental Domains	12
Table 2 - Key roles and responsibilities.....	14
Table 3 - Emergency contact details.....	39
Table 4 - Environmental risks and issues, mitigation and monitoring measures.....	41

APPENDICES

Appendix A – Document checklist	56
Appendix B – Template for key personnel contact details	61
Appendix C – Complaint register template	62
Appendix D – Daily/weekly compliance checklist	63
Appendix E – Monthly compliance report template.....	81
Appendix F – Waste management plan template.....	84
Appendix G – Monitoring plan	87
Appendix H - Weed and seed inspection form	90
Appendix I – CEMP of each mine domain.....	93

ABBREVIATIONS

Abbreviation	Description
CEMP	construction environmental management plan
DOF	Directorate of Forestry
DWA	Department of Water Affairs
ECC	Environmental Compliance Consultancy (Pty) Ltd
ECO	Environmental Control Officer
EMA	Environmental Management Act No.7 of 2007
ESIA	environmental and social impact assessment
ESMP	environment and social management plan
DoF	Directorate of Forestry
GPS	global positioning system
ha	hectare
i.e.	that is
km/h	kilometre per hour
kV	kilovolts
Ltd	limited
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
MSDS	material safety data sheet
ML	mining licence
mm	millimetre
MLIREC	Ministry of Labour, Industrial Relations and Employment Creation
MME	Ministry of Mines and Energy
NAMPOL	Namibian Police
NCCA	Namibia Civil Aviation Authority
NHC	National Heritage Council
OGEM	Osino Gold Exploration and Mining (Pty) Ltd
PM	particulate matter
PPE	personal protective equipment
Pty	proprietary
QCPs	quality control points
RA	Roads Authority
ROM	run of mine
TSF	tailings storage facility
WRD	waste rock dump

1 INTRODUCTION

1.1 PROJECT BACKGROUND

Environmental Compliance Consultancy (Pty) Ltd (ECC) has been engaged by Osino Gold Exploration and Mining (Pty) Ltd (hereto referred to as the Proponent), a Namibian company and subsidiary of Osino Resources Corporation to develop the construction environmental management plan (CEMP) for the construction phase of the Twin Hills Gold Mine Project. Osino Resources Corp manages operations in Namibia through its wholly owned subsidiary, Osino Namibia Holdings (Pty) Ltd, which is the parent company of Osino Gold Exploration and Mining (Pty) Ltd. The Twin Hills Gold Project is located within mining licence (ML) 238, in a triangular area bounded by the towns of Omaruru, Karibib and Wilhemstal (Figure 1).

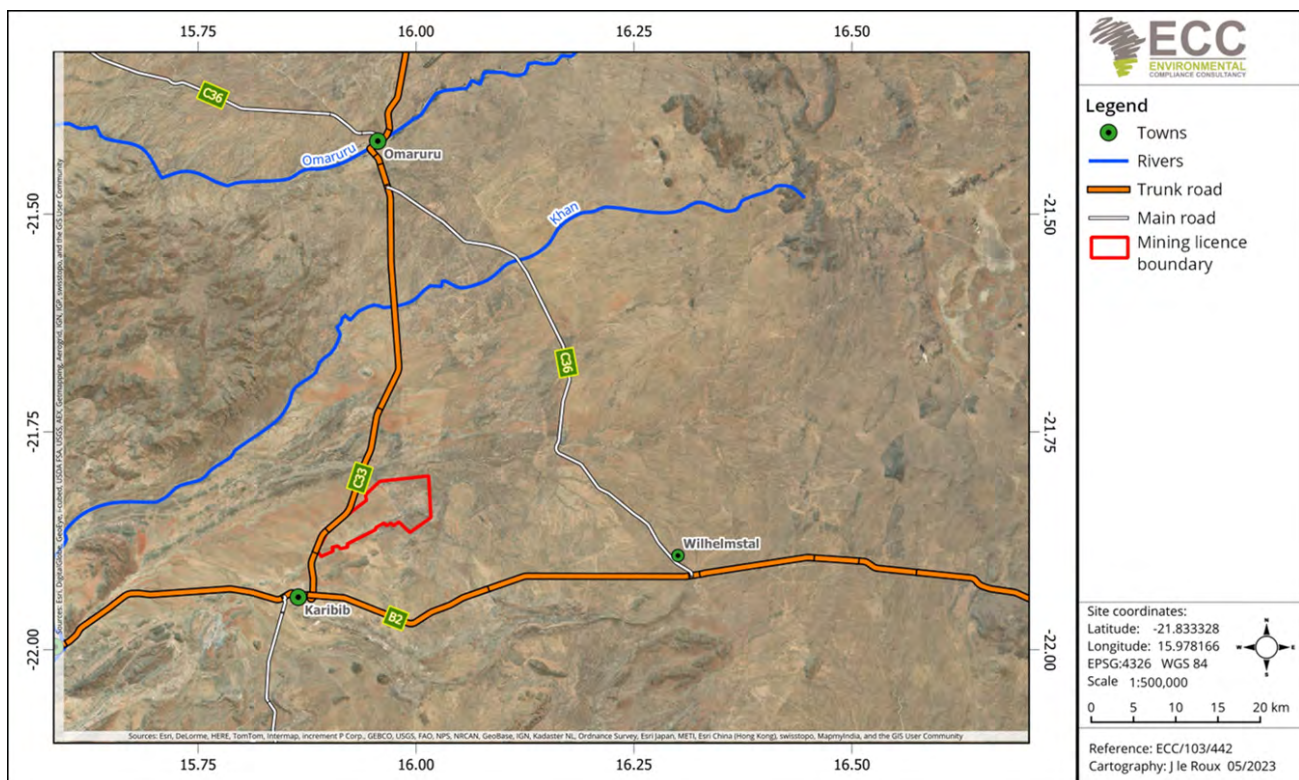


Figure 1 – Tenement boundaries of ML 238 (red polygon), surrounding towns, rivers and national roads

1.2 ENVIRONMENTAL REGULATORY REQUIREMENTS

The Project triggers listed activities as set out in the Environmental Management Act, 2007 (Act No. 7 of 2007) and the Environmental Impact Assessment Regulations, 2007 (No. 30 of 2011) gazetted under the Environmental Management Act, (EMA), 2007 (Act No. 7 of 2007) (referred to herein as the EIA Regulations). As required by the Act, an environmental clearance certificate has been obtained for the project and was issued by the Ministry of Environment Forestry and Tourism on the 3rd November 2022 and remains valid until 3rd November 2025. The environmental clearance certificate renewal application will be submitted in the second quarter (Q2) of 2025.

1.3 PURPOSE OF THIS REPORT

The purpose of this CEMP is to provide a management framework to the Proponent and contractors for the planning, implementation and execution of construction activities for the Twin Hills Gold Mine. The CEMP provides environmental guidelines and standards relating to construction and on-site arrangements to minimise, prevent or mitigate potential environmental impacts of the Project, as far as practicably possible. Further, it ensures that statutory requirements and other legal obligations are fulfilled.

The CEMP presents protocols, procedures, and assigns roles and responsibilities to ensure the management framework is appropriately and effectively implemented. The CEMP forms an appendix to the amended ESIA report; therefore, the amended ESIA report should be referred to for further information relating to technical specifications, assessment methodology and assessment findings.

The CEMP is a live document and shall be reviewed at predetermined intervals, and/or updated when the scope of works changes, or when further data / information is available. All personnel working on the Project (including contractors and subcontractors) are legally required to comply with the requirements set out in this CEMP.

1.4 LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS OF THIS CEMP

This CEMP does not include specific measures for compliance with statutory occupational health and safety requirements. This will be provided in the safety management plan to be developed by the Proponent.

Where there is any conflict between the provisions of this CEMP and any contractor's obligations under their respective contracts, including statutory requirements (such as licences, project approval conditions, permits, standards, guidelines and relevant laws), the contract and statutory requirements are to take precedence.

The information contained in this CEMP is based on the Project description as detailed in the ESIA report. Where the design or construction methods alter, this CEMP may require updating and further assessment shall be undertaken.

1.5 ENVIRONMENTAL ASSESSMENT PRACTITIONER

Environmental Compliance Consultancy (Pty) Ltd (ECC), a Namibian consultancy (registration number Pty Ltd 2022/0593), has prepared this CEMP on behalf of the Proponent.

This report has been authored by employees of ECC, who have no material interest in the outcome of this report, nor do any of the ECC team have any interest that could be reasonably regarded as being capable of affecting their independence in the preparation of this report. ECC is independent from the Proponent and has no vested or financial interest in the Project, except for fair remuneration for professional fees rendered which are based upon agreed commercial rates. Payment of these fees is in no way contingent on the results of this report, or a record of decision issued by Government. No member or employee of ECC is, or is intending to be, a director, officer, or any other direct employee of Osino. No member or employee of ECC has, or has had, any shareholding in Osino.

All compliance and regulatory requirements regarding this report should be forwarded by email or posted to the following address:

Environmental Compliance Consultancy (Pty) Ltd
PO Box 91193, Klein Windhoek, Namibia
Tel: +264 81 669 7608
Email: info@eccenvironmental.com

2 PROJECT MANAGEMENT AND PERSONNEL

2.1 MANAGEMENT OF THIS CEMP

Osino Gold Exploration and Mining (Pty) Ltd (OGEM) holds the environmental clearance certificate for the Project and shall ensure the implementation and management of this CEMP. The implementation and management of the CEMP, along with compliance monitoring shall be undertaken through daily duties and activities, and weekly and monthly inspections. Regular meetings between designated parties shall be held to ensure that any environmental issues, lessons learnt or required amendments to this CEMP are appropriately reported and recorded. The findings of these meetings shall be taken forward and considered during the annual review. The annual review shall be conducted each year from the commencement date of Project activities, with a summary report generated to document the findings and progress. The following shall be considered during the review:

- The review shall include an evaluation of the operation's effectiveness of implementing this CEMP, of environmental procedures, processes, forms, checklists and any other document;
- The summary report shall include a review of all review findings, including the independent review;
- The review shall include an evaluation of environmental incidents and community complaints, and actions taken to rectify or address these events; and
- This CEMP shall be revised as required based on the outcomes of the review.

This CEMP shall be circulated to all contractors and subcontractors and shall be made available on the Proponent's website/SharePoint.

A list of required supporting plans, permits, registers or documents are provided in Appendix A.

2.2 DOMAINS AND DOMAIN ENVIRONMENTAL SCHEDULES

The construction site will operate in distinct operating zones/work areas that are defined as domains. Through defining these domains, clear operating areas are established. Each domain has a concise environmental management plan, known as a domain schedule.

Within each domain, a domain manager will be assigned and is responsible and accountable for the management of the environment within the domain and who shall ensure that the domain schedule is reviewed to ensure no additional environmental risks or impacts are occurring.

The appointed environmental control officer shall ensure that all measures are implemented to mitigate and manage environmental risks; e.g. ensuring pollution control measures, and that monitoring and reporting associated with the domain are in place. The domains for the Twin Hill Gold Mine site have been set out in Table 1 and are aligned to the mine closure plan for the site.

Each domain CEMP is detailed in Appendix I.

Table 1 – Twin Hills Gold Mine Environmental Domains

Description		Includes	Domain Manager
Domain 1	Surface infrastructure:	– Access roads – Power lines – Borrow pit – Quarry – Attenuation dam – River diversion wall/dam	General Manager or Mine Manager
Domain 2	Explosives magazine	– Explosives magazine	Mine Manager
Domain 3	Open pit mining area	– Twin Hills Pit – Clouds Pit – Bulge Pit – Western Pit – Mine haul roads – Mining ponds	Mine Manager
Domain 4	Waste rock dump, low- and medium-grade mineral stockpiles	– Waste rock dump – Low- and medium-grade stockpiles	Mine Manager
Domain 5	ROM Pad and crusher	– ROM – Primary Crusher	Technical Services Manager
Domain 6	Process plant and tailings pipeline	– Processing plant – Plant lab – Tailings pipeline, return water pipeline and pipeline bund – Diesel tank – Reagent store	Process Manager
Domain 7	Tailings Storage Facility (TSF)	– TSF – Return water dam (RWD) – TSF fence – TSF roads	Process Manager
Domain 8	Bioremediation site	– Bioremediation site	Environmental Manager
Domain 9	Sewerage treatment plants and water storage facilities	– Site sewerage treatment plant – Management camp sewerage treatment plant – Evaporation ponds	Engineering Manager
Domain 10	Engineering workshop	– Heavy vehicle workshops – Drill rig workshop – Component, mechanical and rebuild workshop – Boiler maker workshop – Ancillary and LV workshop	Engineering Manager

Description		Includes	Domain Manager
		– Wash bays – Refueling stations	
Domain 11	Equipment, parts and material supply	– Main warehouse – Reagent store – Plant warehouse	Supply Manager
Domain 12	Admin area	– Security building – Low security area – Personnel transport drop-off zone – Access gate	Security Manager
Domain 13	Management camp	– Self-catering camp area	Supply Manager
Domain 14	Non-mineral waste (solid waste)	– Landfill – Sorting and recycling area – Incinerator	Environment Manager
Domain 15	Topsoil stockpiles	– Topsoil stockpiles	Environment Manager
Domain 16	Freshwater supply – production and monitoring boreholes	– Abstraction boreholes – Dewatering boreholes – Monitoring boreholes – Water tanks/Reservoirs – Pipelines	Environment Manager
Domain 17	Contractors' laydown area	– Contractors' area	Technical Services Manager

2.3 ORGANISATIONAL STRUCTURE, ROLES AND RESPONSIBILITIES

The Proponent shall be responsible for:

- Ensuring all Project team members, including contractors, subcontractors and consultants comply with the procedures set out in this CEMP;
- Ensuring that all persons are provided with sufficient training, supervision and instruction to fulfil these requirements; and
- Ensuring that any persons allocated specific environmental responsibilities are notified of their appointment and confirm that their responsibilities are clearly understood.

Contractors shall be responsible for ensuring and demonstrating that all personnel employed by them are compliant with this CEMP, as listed above.

The key personnel and environmental responsibilities of each role during the construction works are summarised in Table 2. The list of internal and external key personnel for the Project is provided in Appendix B. This register shall be displayed on-site and shall be reviewed and updated regularly to ensure all details are correct.

Table 2 - Key roles and responsibilities

Role	Responsibilities and Duties
Osino Gold Exploration and Mining (Pty) Ltd Management Team	– Responsible for the overall implementation and management of this CEMP; – Ensure environmental policies are communicated throughout the Project; – Responsible for providing the required resources, including technical support to complete the required tasks.
Project Manager	– Appointed by the Proponent. – Responsible for overseeing the construction works, day to day activities, and compliance with this CEMP. – Ensuring the construction team (i.e. contractors) are aware of the commitments made in this CEMP and any other relevant regulatory requirements; – Ensuring there are adequate resources made available for the implementation of this CEMP; – Conducting Project meetings regularly during the construction period to review actions arising from previous inspections, current status of tasks and schedule of upcoming tasks; – Arranging an independent audit to assess the Proponents' level of compliance with this CEMP; – Ensuring all contractors and subcontractors complete the site induction process prior to commencing work on the Project; – Maintain up to date register of employees who have completed the site induction; and – Report any non-compliance or accidents to the Regulatory Authority (e.g. MEFT, MME, MLIREC and NHC).
Site Manager	– Appointed to manage and oversee the execution of various construction activities and manage any contractors. – Responsible for the implementation of this CEMP and ensuring all construction activities are compliant with this CEMP; – Overseeing/supervising daily on-site activities; – Managing the preparation and implementation of Method Statements for certain activities, and ensuring that the Environment Officer reviews them to ensure the relevant environmental protocols are incorporated; – Reporting any non-compliance or accidents to the Project Manager and Environmental Officer; – Ensuring that all Project team members complete the site induction exercise prior to commencing with any work on-site;

Role	Responsibilities and Duties
	– Ensuring that all contract workers, sub-contractors and visitors to the site are familiar with the requirements of this CEMP, relevant requirements of this CEMP for their specific roles and consistently comply to the guidelines; and – Receiving, recording and responding to complaints.
On-site Environmental Officer	With experience in the field and management of large projects in the mining industry, the Environment Officer will be appointed by the Proponent and will be tasked with the following duties: – Serve as the primary contact for matters related to the environmental performance of the Project; – Reporting the Project environmental performances (including incidents and complaints received) to the Project Manager and Site Manager; – Reviewing environmental management content of construction Method Statements; – Providing guidance for the construction team in dealing with environmental matters, including legal and statutory requirements relevant to the Project; – Responsible for the upkeep of all environmental management plans, production of environmental monitoring reports and associated reports/records; – Responsible for providing guidance and advise in response to environment-related complaints received from the public and other stakeholders. – Ensuring that best environmental practices are implemented throughout the entire construction period; – Undertaking routine compliance inspections of the construction site and activities; – Providing environmental awareness/management training and inductions; – Timely distribution of any relevant environmental documentation, including revisions to this CEMP, to all construction managers and contractors; and – Liaise with Project Specialists. For example, Peter Cunningham (Ecologist), Dr Alma Nankela (Heritage Specialist) and Mr Kevin Stols from Knight Piesold during the Okawayo River diversion works.
Construction workers (contractors)	Responsible to comply with this CEMP throughout the Project construction phase, in addition to: – Demonstrating an understanding of the CEMP, its content and requirements;

Role	Responsibilities and Duties
and subcontractors)	- Attend briefings on specific environmental activities; - Reporting any operations and conditions that deviate from the CEMP or any non-compliant issues or accidents to the Environmental officer, Site Manager and Project Manager; and - Ensuring all tasks and Methods Statements are signed off by Environment Officer and Site Manager prior to undertaking activities.
Independent Environmental Consultants (i.e. Environmental Control Officer) or Nominated Expert	An Environmental Control Officer (ECO) or specialist consultant who will act in an advisory capacity on request from the Proponent. The independent environmental consultant will be responsible for: - Liaise closely with the Environmental Officer on-site throughout the Project construction phase; - As per contractual agreement signed with the Proponent, conduct, monthly, quarterly, biannual or annual compliance audits on-site. - Reporting any issues of concerns to the Environment Officer, Site Manager and Project Manager as soon as the issue arises, and take appropriate action as they deem necessary in line with this CEMP; - Record and report any operations or conditions that deviate from the CEMP or any non-compliant activity. Monthly written report should be issued to the Environment Officer and Project Manager; - Advise the Project team, through the Environmental Officer and Site Manager on corrective actions required for implementation; and - Conduct follow ups of corrective actions to ascertain the level of commitment and compliance to the CEMP.

2.4 CONTRACTORS AND SUBCONTRACTORS

Any contractor or subcontractor contracted during the construction phase is expected to comply with this CEMP. Each contractor and subcontractor is expected to:

- Undertake construction activities in accordance with this CEMP as well as relevant policies, procedures, management plans, method statements, statutory requirements, and contract requirements;
- Implement appropriate environmental and safety management measures;
- Engage in industry best practices to ensure long-term Project sustainability;
- Report environmental issues, including actual or potential environmental incidents and hazards, to the Environmental Officer, Site Manager or Project Manager; and
- Ensure that appropriate corrective or remedial actions are implemented to address all environmental hazards and incidents. Lessons learnt should also be documented.

2.5 EMPLOYMENT

The Proponent and all contractors shall comply with the requirements of the Republic of Namibia Regulations for Labour, Health and Safety, and any amendments to these Regulations. The following points should be considered during the recruitment processes:

- Liaise with local government and community authorities to ensure that local people have access to information about job opportunities and are considered first for construction contract employment positions;
- The number of job opportunities shall be made known together with the associated skills and qualifications required. The maximum duration of the job shall be clearly specified;
- Foreign workers with no Namibian work permits shall not be hired; and
- Every effort shall be made to recruit from the pool of unemployed workers living in Karibib, Omaruru and Wilhemstal area.

As the Project develops, additional employment principles shall be developed and incorporated in the revised CEMP to ensure the effective implementation of robust employment policies.

3 COMMUNICATION AND TRAINING

3.1 INTRODUCTION

The Project will involve various construction activities which may impact receptors such as the surrounding farming community and, to a lesser extent, the residential communities of Karibib. Therefore, it is imperative that local communities are regularly liaised with to communicate aspects related to the scheduling of certain activities, safety and environmental restrictions and risks with certain activities and provide updates of construction works.

3.2 COMMUNICATIONS: INTERNAL

3.2.1 ENVIRONMENTAL COMMUNICATIONS

The Project Manager and Environmental Officer shall communicate site-wide environmental issues through the following means;

- Site induction (see section 3.5.1);
- E-mails;
- Environmental posters and site notices;
- Method Statement and Risk Assessment briefings (see section 5.2);
- Audits and site inspections;
- Toolbox talks, including instruction on incident response procedures; and
- Key project specific environmental issues briefings.

This CEMP shall be distributed to the Project team, including contractors and sub-contractors, to ensure that the environmental requirements are communicated effectively. Key activities and environmentally sensitive operations shall also be briefed to workers and contractors.

3.2.2 MEETINGS

During the construction phase, internal communication between the management team shall include regular progress meetings (e.g. monthly), covering:

- Training undertaken;
- Progress reports;
- Inspections, audits and non-conformance;
- Complaints received;
- Visits by external bodies and the outcome or feedback from such visits; and
- Objective / targets achievement, including reporting on environmental performance.

3.3 COMMUNICATIONS: EXTERNAL

3.3.1 COMMUNITY

The Environment Officer shall represent the Project and shall liaise with the local communities and stakeholders regarding the construction works (i.e. Karibib Air Force Base, neighbouring marble quarry miners and the farming community in the immediate Project area). The points below should be communicated to the stakeholders and affected parties. This list is not limited and may develop over time depending on community feedback and requests.

- Clear contact details of the Proponent and Environmental Officer. The information should be circulated around the community to ensure that communities can reach out with any questions, concerns or complaints;
- Quarterly Project updates to local residents through notice boards / news-letter / meetings to keep the local community up to date with progress and scheduled activities thereof;
- Quarterly environmental forums reporting environment and social performance to multi-stakeholders including government, local council, neighbours and other stakeholders; this group of representatives will then report back to their respective associations;
- Early warnings of noisy construction works through notices, What's App / group text alerts, door-to-door engagement and letter dropping for surrounding residents; and
- Flyers circulated around the community with information detailing available alternative roads for the duration of the construction phase.

This CEMP will be uploaded on ECC and the Proponent's website.

3.3.2 OTHER STAKEHOLDERS

During the construction works, communication will be required with external parties. Communication may take the form of scheduled meetings, site visits or written correspondences. The key stakeholders who shall be communicated with include, but are not limited to:

- Erongo Regional Council;
- Karibib Town Council;
- Roads Authority;
- Omaruru Municipality;
- Ministry of Environment, Forestry and Tourism (MEFT);
- Ministry of Mines and Energy (MME); and
- Ministry of Agriculture, Water and Land Reform (MAWLR).

3.4 COMPLAINT HANDLING AND RECORDING

Complaints shall be directed to a dedicated email address and nominated phone number. The details of which shall be circulated to the local community and displayed on notice boards. Any complaints received verbally by any personnel working on the Project shall be recorded by the receiver, including the name and contact details of the complainant, date and time of the

complaint, and the nature of complaint. The information shall be handed over to the Environmental Officer, Site Manager and Project Manager who are responsible for the management of complaints. The Environmental Officer shall inform the Site Manager of the issues, concerns or complaint received and shall provide a written response to the complainant.

The Environmental Officer shall maintain a complaint's register (see template in Appendix C) that will detail the name and contact details of the complainant, date and time of the complaint, nature of complaint, action taken to resolve issues, and date of complaint handover. The Environment Officer shall be responsible for nominating the correct personnel to co-ordinate and resolve the issue.

The workforce shall be informed about the complaints register, its location and the person responsible, in order to refer local residents or the general public who wish to lodge a complaint.

The complainant shall be informed in writing of the results of the investigation and action(s) to be taken to rectify or address the matter(s). Where no action is taken, the reasons why are to be recorded in the register.

The complaints register shall be kept for the duration of the Project and will be available for government or public review upon request.

3.5 TRAINING AND AWARENESS

All personnel working on the construction site shall be competent to perform tasks that have the potential to cause an environmental impact. Competence is defined in terms of appropriate education, training and experience. The trainings may be provided annually, as a refresher or when certain components may change over time. The Environmental Officer shall ensure that registers of training sessions conducted are maintained and filed.

3.5.1 SITE INDUCTION

All personnel involved in the Project will be inducted to site with specific environment and social awareness training, and health and safety issues concerning construction works. The environment and social awareness training will ensure that staff are familiar with the principles of this CEMP, the environment and social aspects and impacts associated with their activities, the procedures in place to control these impacts and the consequences of departure from these procedures.

The site induction should include, but not be limited to the following:

- A general site-specific induction that outlines:
 - What is meant by “environment and social”;
 - Why the environment needs to be protected and conserved;
 - How construction activities can impact the environment; and
 - What can be done to mitigate against such impacts.
- The inductee’s role and responsibilities with respect to implementing the CEMP;
- The environmental impacts and social responsibilities associated with the inductee’s working activities;
- The site environmental rules;
- Details of how to deal with, and who to contact if environmental problems occur;
- Response to specific spills, fires and injuries;
- The potential consequences of non-compliance with this CEMP and relevant statutory requirements; and
- The role of responsible people for the Project.

3.5.2 SPECIALIST BRIEFINGS

Additional environment and social briefings may be delivered to specific personnel allocated with environmental responsibilities or to employees on specific environmental risks applicable to specific activities and mitigation measures required. This may be coordinated with Project specialists. For example, engineers from Knight Piesold may be brought in to provide further expertise on the Okawayo River diversion and the construction of the weir dam.

4 REPORTING, COMPLIANCE AND ENFORCEMENT

4.1 ENVIRONMENTAL PERMITS AND LICENCES

All Project permits, licences and certificates shall be obtained prior to the commencement of construction activities. The following environmental permits will be in place prior to applicable activities being undertaken:

- An environmental clearance certificate for the overall Project. This authorises the Proponent to undertake various listed activities under the Environmental Management Act No. 7 of 2007 and its 2012 Regulations.
- A diesel fuel storage (31 000 litres) and distribution facility will be on-site during the construction phase. As such, the Project will require a consumer installation certificate for on-site bulk fuel storage and dispensing, in compliance with the Petroleum Products and Energy Act No. 13 of 1990 and its associated Amendments and Regulations.
- A land clearing permit issued under the Forest Act No. 12 of 2001 (as amended in 2005). This permit (valid for three months) would authorise the Proponent to clear approximately 1 730 hectares (ha) of land for mining activities.
- An accessory work permit issued in terms of the Minerals Act No. 33 of 1992 that authorises the construction of various mining infrastructure (i.e. processing plant, access roads and transport networks, tailings storage facility (TSF), waste rock dump (WRD), mining facility offices, waste management systems (facilities), linear infrastructure (powerlines, airstrip), temporary/permanent camp facilities for workers etc.).
- Licence to discharge effluent and construct and operate a wastewater treatment facility.
- Water abstraction licence issued in terms of the Water Resources Management Act No. 11 of 2013 and its Regulations of 2023.
- Licence for the Okawayo River diversion and construction of a weir dam. This licence is issued in terms of the Water Resources Management Act No. 11 of 2013 and its Regulations of 2023.
- Environmental clearance certificate and consent from the Namibia Civil Aviation Authority (NCCA) for the erection of the 66 and 11 kilovolts (kV) powerline within the Karibib Air Force Base aerodrome. These approvals ensures that the Project complies with environmental regulations and aviation safety standards.
- Permit issued by the Roads Authority (RA) for the D1941 road diversion.
- Consent for the National Heritage Council (NHC) issued in terms of the National Heritage Act No. 27 of 2004 for the demolition of the colonial-era ruined building and the exhumation, relocation and reburial of the graves located on farm Okawayo No.46.

A check list of permits, licences approvals, forms, registers and documents that are required prior to specific construction activities is provided in Appendix A.

4.2 ENVIRONMENTAL PERFORMANCE MANAGEMENT

4.2.1 SUMMARY OF ENVIRONMENTAL RISKS AND MITIGATION MEASURES

Chapter 6 provides a register of environmental risks and issues, which identifies mitigation and monitoring measures, as well as roles and responsibilities. This register will be subject to regular review by the Environmental Officer together with the Site Manager and updated when necessary.

This register will be used to undertake monthly inspections by the Project Manager, Site Manager and Environment Officer to ensure the Project is, and remains, compliant with this CEMP.

4.3 ENVIRONMENTAL INSPECTIONS AND COMPLIANCE MONITORING

4.3.1 DAILY COMPLIANCE MONITORING

A copy of this CEMP shall be on site throughout the construction works and shall be available upon request. It is the responsibility of the Project management team to ensure this CEMP is complied with through their daily roles.

Daily inspections will be undertaken by the Environmental Officer and Site Manager (or nominated site supervisor) (see template in Appendix D) and a weekly report shall be prepared which shall be developed prior to construction. Any environmental problems or risks identified shall be recorded and the Environment Officer, in consultation with the Site Manager, shall take the necessary remedial actions as soon as practicably possible.

4.3.2 MONTHLY COMPLIANCE MONITORING

Monthly inspections shall be undertaken by the Environmental Officer to check that the standards and procedures set out in this CEMP are being complied with and pollution control measures are in place and working correctly. Monthly compliance reports shall be produced (see template provided in Appendix E). This report shall be completed by the Environment Officer and issued to the Project Manager and Site Manager who will review and discuss any issues with the Environmental Officer. The report shall contain a brief description of any areas of non-conformance with the contract specification, the reason for the non-conformance, the responsible party, the result (consequence), the corrective action taken and any necessary follow up measures required.

The Proponent shall contract an independent environmental consultant to conduct monthly compliance audits across all construction work areas. Monthly reports shall be issued to the Project management team. Any identified non-conformances should be discussed/addressed with the Environmental Officer, who shall assign personnel to ensure that remedial action(s) are implemented.

4.3.3 INSPECTION OF MACHINERY AND EQUIPMENT

All machinery and equipment performing an environmental function shall be well maintained and serviced in line with their specifications. A register of all machinery and equipment under the responsibility of the contractors shall be maintained and serviced as and when required. This register shall be reviewed monthly to ensure all checks and services for machinery and equipment have been undertaken. The register shall include, but not limited to the following:

- Piece of machinery and equipment;
- Make and model;
- Frequency of required service and scheduled dates;
- Dates of last inspection, maintenance and/or test;
- Notes of any issues or concerns; and
- Responsible person.

4.3.4 ANNUAL COMPLIANCE MONITORING

An independent annual audit shall be undertaken to review operations and compliance over the last 12 months. All monthly reports shall be reviewed, identifying any trends or reoccurrences of non-conformances or significant areas of concern, as well as measures implemented to manage / resolve the environment or social issues. All complaints or comments and actions taken shall be reviewed. Compliance and legislative changes shall be reviewed, and lessons learnt shall be captured. This CEMP shall be amended as required, and follow up training, awareness or updates shall be provided across the Project.

A checklist of permits, approvals, forms, registers and documents that are required prior to certain construction activities is provided in Appendix A. This checklist shall be used to ensure compliance with this CEMP and shall be updated particularly with any required Method Statements.

4.4 REPORTING

There will be a requirement to ensure that any incident is reported to the Project management team. In the event of any environmental issue, failure of machinery and equipment that perform an environmental function or accident, the reporting structure presented in Figure 2 shall be followed.

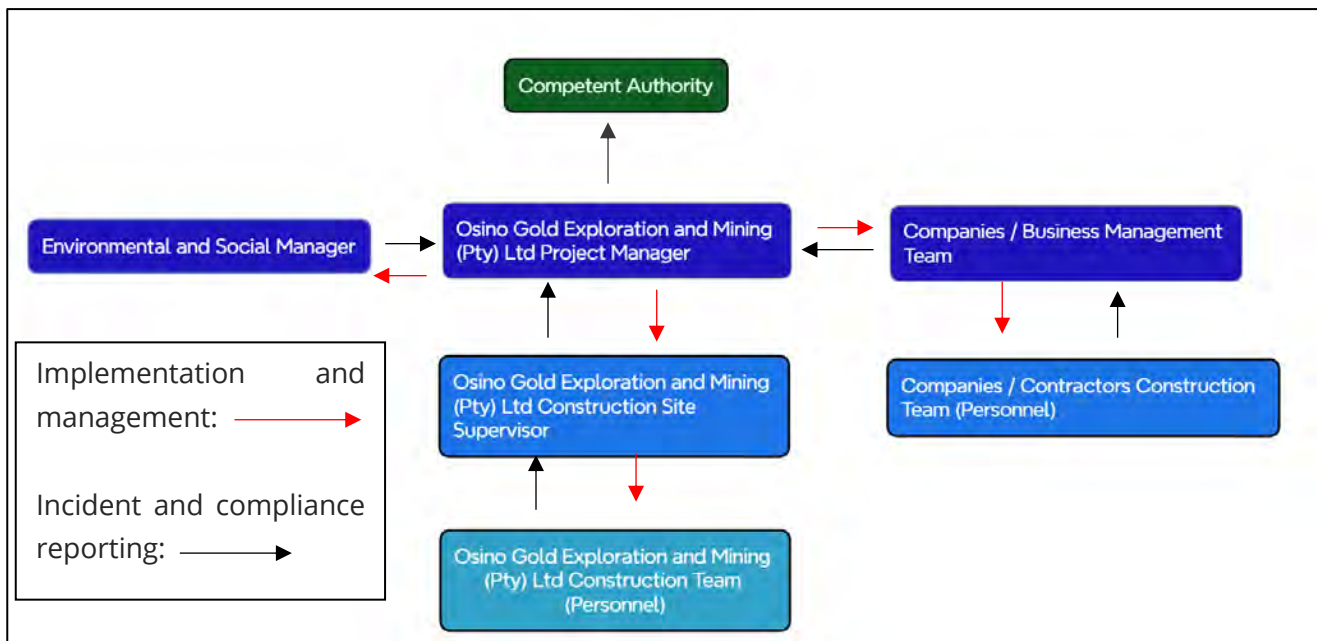


Figure 2 – Incident reporting structure overview

4.4.1 NON-COMPLIANCE

Where it has been identified that works are not compliant with this CEMP, the Proponent shall employ corrective actions so that the works return to being compliant as soon as possible. In instances where the requirements of the CEMP are not upheld, a non-conformance and corrective action notice shall be produced. The notice shall be generated during the inspections conducted by the Supervisors, the Site Manager, Environment Officer or external third-party auditors. The Site Manager will be responsible for ensuring a corrective action plan is established and implemented to address the identified shortcoming.

A non-compliance event / situation is considered if:

- There is evidence of contravention of this CEMP and associated indicators or objectives;
- The contractor or subcontractor has failed to comply with corrective actions or other instructions issued by the Environmental officer, external auditor or qualified authority; or
- The contractor or subcontractor, through the appropriate reporting channels fail to respond to complaints from the public.

Works will be stopped in the event of a non-compliance, until corrective action(s) has been completed. A compliance report will be produced each month, as discussed previously.

4.4.2 DISCIPLINARY ACTION

This CEMP is a legally binding document and non-compliance with it shall result in disciplinary action being taken against the perpetrator/s. Such action may take the form of (but is not limited to):

- Fines or penalties
- Legal action;
- Monetary penalties imposed to the contractor or subcontractor;
- Withdrawal of licence/s or termination of contract; or
- Suspension of work.

The disciplinary action shall be determined according to the nature and extent of the transgression / non-compliance, and penalties are to be weighed against the severity of the incident.

4.5 PENALTIES

The Contractor, under the leadership of the Proponent, shall ensure that all employees of the Contractor, sub-contractors, and suppliers are familiar with, understand, and adhere to this CEMP.

Failure by any employee of the Contractor, sub-contractors, or suppliers to comply with the CEMP shall be considered sufficient cause for the Project Manager to instruct the Contractor to have the relevant employee removed from the site.

The Proponent may also order the Contractor to suspend part or all of the works if there is non-compliance with the CEMP. Such suspension shall be lifted only when the offending procedure or requirement is corrected and/or if required remedial measures are put in place.

Penalties for the incidents described below will be imposed by the Project Manager on the Contractor and/or his/her sub-contractors and suppliers after consultation with the Environmental Control Officer.

No.	Type of Incident	Penalty Amount NAD
1	Any employees, vehicle, machinery, etc. related to the Contractor's activities operating outside the designated project boundaries or within a No-Go areas.	NAD 4,000
2	Damage to indigenous vegetation outside the approved footprint of the land clearing permit issued by Osino to the contractor	The cost of restoration plus NAD 5,000
3	Clearing of land without a land clearing permit	The cost of restoration plus NAD 5,000

No.	Type of Incident	Penalty Amount NAD
4	Using heavy equipment on site that has not been inspected nor issued with a weed and seed clearance certificate	The cost of restoration plus NAD 5,000
5	Damage to national heritage monument or cultural sites	Up to a maximum of NAD 100,000 per incident
6	Damage to fauna, including poaching incidents	Up to a maximum of NAD 4,000 per incident
7	Oil, grease, fuel or hazardous fluid spills	The cost of the clean-up operation plus NAD 3,000
8	Inappropriate methods of refuelling that cause spillages or unbanded chemical	NAD 2,000
9	Litter on site	NAD 1,000
10	Disposal of or burning of waste other than described in the CEMP and approved by the Project Manager	NAD 5,000
11	Employees not making use of toilet facilities provided on site	NAD 1,000
12	Misuse of a water resource	NAD 5,000

For each subsequent similar offense, the penalty may be doubled in value, at the discretion of the Project Manager, to a maximum value of N\$10,000, with the exception of No. 4 for damage to a national heritage monument.

The Project Manager shall judge what constitutes a transgression of the terms of the EMP and will consult with the Environmental Control Officer on such matters.

4.6 CONTROL OF RECORDS

A range of environmental records, for example waste management records are required and specified throughout this CEMP. A summary of requirements is provided in Appendix A.

Environmental records shall be maintained, either in hard copy or electronic format and shall be readily identifiable, retrievable and protected against damage, deterioration or loss.

5 CONSTRUCTION ENVIRONMENTAL MANAGEMENT

5.1 OBJECTIVES AND TARGETS

Environmental objectives for the construction works are as follows:

- Zero pollution incidents;
- Minimise waste sent to landfill or being burnt;
- Promote efficient use of resources;
- Minimise disruption to residents (and therefore complaints); and
- Protect terrestrial and aquatic biodiversity.

Procedures for monitoring construction processes against the Project environmental objectives will be proposed by the contractor and agreed upon with the Project Manager.

5.2 METHOD STATEMENT AND RISK ASSESSMENT

Method Statements shall be developed, and risk assessments shall be conducted prior to the commencement of specific activities, and shall include environmental protection and mitigation measures, as well as emergency preparedness appropriate to the activity covered. The contractor(s) or subcontractor(s) shall draft Method Statements for each of their construction activities. The Site Manager and Environmental Officer shall review its content and provide advice where necessary.

Method Statement briefings shall be provided before personnel carry out key activities for the first time.

Method Statements shall be produced for a range of activities, including, but not limited to:

- Worker's campsite (see section 5.5.1);
- Establishment and set up of construction site (see section 5.5.2);
- Clearance of grass, vegetation, topsoil and subsoil (see section 5.5.3);
- Silt management and contingency plan (see section 5.5.4);
- Management of archaeological sites and objects (see section 5.5.5);
- Risks to the terrestrial environment (see section 5.5.6);
- Solid waste management (see section 5.5.7);
- Pollution control and contingency plan (see section 5.5.8);
- Community nuisance and hazards (see section 5.5.9);
- Fire prevention (see section 5.5.10);
- Environmental monitoring (see section 5.5.11).

5.3 CONSTRUCTION QUALITY CONTROL POINTS

Construction quality control points (QCPs) shall be identified in the Project schedule prior to construction activities commencing. QCPs are required to control Project risks, including

environmental and social, during specific activities, and to allow for stringent monitoring and accountability to reduce risk within activities. At QCPS, sign off is required upon completion of a construction activity to allow the following activity to commence. This sign off shall be undertaken by the identified responsible personnel.

A QCP system will be in place for the construction phase. QCPs shall be identified and implemented for the construction phase by incorporating them into the Method Statements and must include the key responsible personnel that will sign off and or witness each quality control point (critical). QCPs have been incorporated into the environmental monitoring plan in Appendix G.

5.4 PROJECT CLOSE

All QCPs shall be closed before Project close and signed off.

5.5 CONSTRUCTION ENVIRONMENTAL MANAGEMENT ACTIVITIES

This section detail various requirements and best practices for implementation during the construction phase.

5.5.1 WORKER CAMPSITE AND MANAGEMENT

The site to be used to accommodate workers will be an area that minimises the potential for social and environmental impacts, as well as public nuisances. The Proponent and contractors will prepare a Method Statement for the set-up and operations which will contain, but not be limited to the following details:

- Site location and layout;
- Preparatory works;
- Fencing requirement and access control;
- Waste management (which will comply with the Project's waste management principles – see section 5.9);
- Prefabricated infrastructure to be used;
- Water supply;
- Management of infectious diseases (e.g. HIV/AIDS);
- Sewerage management; and
- Site reinstatement.

The campsite will have defined rules that shall be communicated in a site induction to all workers staying in the camp during the construction phase. Workers who do not comply to these rules shall be disciplined accordingly in line with predetermined agreements set out by the Site Manager prior to construction works. Rules will include, but are not limited to the following:

- No visits from local people to the campsite will be allowed unless approved by the Site Manager;

- The campsite shall be kept clean at all times to minimise visual impact, odours and pests, and waste management measures must be adhered to at all times;
- Workers shall not collect firewood from the site or surrounding areas;
- Poaching is prohibited;
- No alcohol or drugs permitted on the construction camp site; and
- Workers must make use of the facilities and equipment provided for them; no ad hoc alternatives shall be allowed, for example fires for cooking outside of designated areas or using the bush as a toilet.

The campsite will be reinstated back to its original condition upon completion of the construction works or prepared as required for future planned land use. This shall be undertaken in line with an approved Method Statement.

5.5.2 ESTABLISHMENT AND MANAGEMENT OF CONSTRUCTION SITE

A Method Statement will be produced setting out how the site will be established and managed. The construction site shall be established to minimise impacts on the environment and surrounding community, and shall include the following:

- Provide access routes / points onto site at a suitable location to avoid impacts on local residents
- Preventing disruption/disturbance to non-targeted ecosystems, including the downstream areas of the Okawayo River, Khan River and their associated riparian zones;
- Machinery and equipment shall be brought onto site as and when required, and shall follow designated routes and access points;
- Machinery and equipment shall be stored in specific areas taking into consideration impacts on local residents (e.g. start-up of equipment and noise levels);
- A construction office area (construction site office, toilets, other welfare facilities, and the storage areas) shall be set up in a suitable location to avoid impacts on local residents;
- Waste collection area and material storage areas shall be located in areas with least impact (visual and other nuisances) to the local residents;
- Lighting shall only be used when necessary and will be designed to minimise spillage of light, and orientated away from residential properties; and
- Construction site office located away from residential properties.

A 'good housekeeping' policy shall be adopted across the construction site, which will include the following requirements:

- No open fires allowed on-site;
- Considerate behaviour of all site staff;
- Maintenance of staff welfare facilities;
- Removal of food waste and other rubbish at frequent intervals;
- No littering or discard of random solid waste; and
- Maintenance of roads surrounding the site.

5.5.3 VEGETATION, TOPSOIL AND SUBSOIL STRIPPING

Vegetation shall be cleared on the construction site in accordance with the land clearing permit issued by the Directorate of Forestry (DoF). The land clearing permit is only valid for three (3) months and shall be renewed in advance, when required. Where possible, established trees along the perimeter of the construction site shall remain in situ.

The Project area is covered by grass and tree species. All vegetation cleared and not reused shall be removed and trucked to the Karibib waste disposal site or a suitable site for composting. Alternatively, grass can be offered to local communal farmers for composting or as fodder.

Where practical, land clearing shall be conducted in stages to limit the generation of dust and reduce its potential impact on nearby receptors.

Topsoil and subsoil shall be stripped and separated where possible to ensure they can be stored and reused later for rehabilitation purposes. Typically, topsoil stockpiles should not exceed a height of 2 m, while overburden stockpiles should not exceed a height of 20 m.

A Method Statement for the clearance of grass, vegetation, topsoil and subsoil shall be prepared.

5.5.4 WEED AND SEED INSPECTION AND CERTIFICATES

All equipment to be used for any earth moving activity (including and specifically those working on the river and road diversions) must be cleaned and free from soil, weed and seeds prior to being used on site. The equipment must be cleaned off site, and arrive on site cleaned ready for the inspection. Should equipment arrive on site uncleaned or fail the weed and seed inspection, it will be turned around and sent off site as no cleaning facilities will be provided on site for such cleaning. The purpose of this is to prevent the spread of weeds in the project areas and beyond, which causes significant environmental issues along with long term rehabilitation costs and effort required by the Proponent. The weed and seed inspection process helps prevent infestation of weeds in the project area from other areas where the equipment was used.

A weed and seed inspection will be completed by the Environmental Office prior to equipment being used on site (see Appendix H). Where this is not possible, the assigned Project Manager must complete this task and provide the inspection to the environmental officer. Upon completion of the inspection a weed and seed clearance certificate will be issued for the piece of equipment.

5.5.5 SILT CONTROL AND CONTINGENCY PLAN

All construction operations on site shall be carried out in a manner to minimise the production and discharge of silty run-off. Where any dewatering or pumping of groundwater (e.g. pit dewatering) must be carried out, a Method Statement shall be developed setting out any required

temporary drainage and the methods of collection and disposal of the waters. The Environmental Officer shall sign off this Method Statement.

Specific ground excavation activities and other construction activities shall be avoided during heavy rainfall events to minimise silt laden surface runoff. Exception may be considered if the Method Statement clearly details well-designed and appropriate drainage systems so as to prevent any pollution of water resources.

5.5.6 MANAGEMENT OF ARCHAEOLOGICAL SITES AND OBJECTS

The ESIA has identified the presence of a colonial-era ruined building and cultural graves within the ML area and will likely be impacted by construction activities. The Proponent has already obtained consent from the National Heritage Council (NHC) for the demolition of the dilapidated colonial building, as well as for the exhumation, relocation and reburial of the graves. The graves have already been exhumed, and the colonial ruined building is demolished .. However, there remains a potential risk of uncovering further archaeological remains, potential buried in the subsurface during land clearing and excavation activities. If such remains are encountered, the following chance find procedures shall be implemented as follows:

- Works to cease and the area is to be demarcated with appropriate tape by the Site Supervisor, and the Site Manager should be informed;
- Site Manager to visit the site and determine whether work can proceed without damage to findings, mark exclusions boundary and inform the Environment and Social Manager with the global positioning system (GPS) position if possible;
- The Environmental Officer shall inspect the site and determine if a specialist is required to determine significance;
- Environment Officer / Archaeological Specialist to evaluate the significance of the remains and identify appropriate action, for example, record and remove; relocate or leave in situ (depending on the nature and value of the remains);
- Inform the police if the remains are human; and
- Obtain appropriate clearance or approval from the competent authority, if required, and recover and remove the remains to the National Museum or National Forensic Laboratory as directed.

5.5.7 RISKS TO THE TERRESTRIAL ENVIRONMENT AND FLUVIAL SYSTEMS

The various construction activities to be undertaken have the potential to cause significant impacts on the terrestrial environment and fluvial systems. These activities, such as site clearing, ground excavation, grading, the operation of heavy machinery and groundwater abstractions, can significantly impact the surrounding environment. These actions may disrupt local ecosystems and disrupt/alter the general make-up of ecosystems. These actions may also degrade soil quality through compaction, erosion and nutrient loss. Groundwater abstraction can reduce water levels and disrupt subsurface flow patterns, including those that sustain the Khan River. This can

significantly affect water availability for riparian ecosystems, local communities and downstream users who depend on the Khan River as a vital water resource.

A risk assessment inventory should be conducted prior to the commencement of land clearing, excavation and construction activities.

A Method Statement for construction activity (particularly detailing water requirements for such activities) shall be prepared prior to the commencement of such construction activity. This will minimise impacts on the terrestrial ecosystem and the fluvial system while outlining the necessary monitoring requirements. The Method Statement should include aspects such as:

- Limiting construction activities strictly to the designated Project footprint;
- Detailing the daily water requirements for such construction activities;
- Slow mobility animals encountered during construction activities have the right of way;
- Personnel to engage the Environmental Officer regarding any potential risk of harm to ecological sites or sensitive areas;
- Conduct a pre-construction wildlife survey to identify the presence of sensitive species and habitats, allowing for informed decision-making;
- Methods to protect non-targeted areas, such as the riparian zones along the Khan River and the Okawayo River; and
- Control invasive species by ensuring that materials and equipment brought to site are free of invasive plant seeds or pests.

Measures shall be taken to ensure ground burrowing species when encountered during the construction process are safely relocated or protected.

5.5.8 SOLID WASTE MANAGEMENT

In terms of Section 3, paragraph (i) of the Environmental Management Act No.7 of 2007, waste must be reduced, re-used and recycled where possible. In accordance with the Act, waste generated on-site will be managed according to the waste management plan. This plan will be developed prior to the commencement of construction activities and will include the following information:

- Description of each waste type expected to be produced during construction activities;
- Estimate quantity of each waste type;
- The waste management action proposed for each waste stream, including re-using, recycling, recovery and disposal;
- Designated areas to collect and separate waste; and
- Identified waste carrier and the waste disposal company

A draft Waste Management Plan template is provided in Appendix F. This shall be drafted prior to construction works and shall be updated on a regular basis to ensure all waste and disposal routes

are identified. The aim of the Waste Management Plan is to achieve sustainable waste management and to outline waste streams and identify the best treatment and disposal option for each one, applying the waste management hierarchy and avoiding as much waste as possible ending up at landfill or being burnt. In addition, it will also outline any potential economical and investment requirements for the treatment and / or disposal of waste.

The following waste management measures will be followed:

- Waste will be collected, separated and temporarily stored in a designated area which will be appropriately signposted and fenced to keep out unauthorised people and animals;
- Waste collection containers will be of an appropriate design to ensure that no waste can escape. The waste containers will be labelled according to waste types to enhance the segregation of waste on-site (e.g. wood, metal, building rubble, domestic waste);
- Waste storage areas shall be kept clean and tidy at all times;
- Waste bins shall be emptied regularly to avoid bad odours and vermin; and
- No burning will be allowed on-site, with the exception of discarded explosives packaging and any empty wooden crates previously used for cyanide transport and storage. Two respective on site dedicated facilities will be constructed.

Portable toilets / toilet facilities will be provided for the construction workforce. These will be emptied and maintained regularly by a suitable and reputable sanitation contractor.

Any hazardous material and wastes shall be managed in a safe and responsible manner to prevent contamination of soils, pollution of water resources and/or harm to people or animals as a result of the use of these materials. Hazardous and non-hazardous waste shall be stored separately at all times.

5.5.9 POLLUTION CONTROL AND CONTINGENCY PLAN

5.5.9.1 *Storage of fuels, oil and chemicals*

A diesel tank with a capacity of 31 000 litres will be constructed on-site. Oil and other chemicals will also be required for different construction activities. A consumer installation fuel tank will be installed onsite to provide fuel that will power equipment and machinery during the construction phase. The Proponent, contractors and subcontractors shall comply with all applicable Namibian laws, regulations, certificate and approval conditions and requirements relevant to the storage, use, and proper disposal of hydrocarbons (see section 4.1)

Where fuels, oils or chemicals are stored on the construction site, the following should be applied:

- Fuel storage tanks should be sited in a location specified and approved under the consumer installation certificate;
- Any fuel tank or container should be on a flat area, and at least 100 m away from any water resources;

- The container shall be stored on an impervious base, be bunded and capable of containing at least 110% of the total capacity of the storage container;
- As good practice, self-contained tanks require concrete and should regularly be inspected for leakage.
- Signs indicating 'no smoking', 'no naked flames' and 'danger' shall be in place in appropriate languages, and will conform to a recognised standard;
- The capacity of the tank and the product within the tank shall be displayed; and
- All personnel handling fuel, oil or chemicals shall be supplied with the correct personal protective equipment (PPE).

5.5.9.2 *Handling of fuel, oil and chemicals*

All Project team members shall take all reasonable precautions to prevent fuel, oil and chemical spills during the course of construction. To this end, the Site Manager shall ensure that:

- All necessary approvals are in place prior to the delivery of fuel, oil or chemicals to site;
- All fuel, oil and chemical deliveries will be supervised by an appointed personnel member, who will be trained to deal with any spills;
- All mobile equipment and machinery shall be refuelled in designated areas, on impermeable surfaces, situated away from drains. A spill kit must be located at each refuelling point. In cases where refuelling within a bunded area is not feasible, a drip tray must be available to capture any spills resulting from overfilling;
- Storage tank levels are to be checked before delivery to prevent overfilling and delivering the wrong product or quantities;
- Regular audits shall be performed to verify that no leaking or defective equipment is brought onto site;
- Any oils or lubricants discharged during routine vehicle servicing onsite shall be captured using drip trays, containers or other appropriate containment measures;
- Equipment must be maintained regularly to prevent fuel, oil or hydraulic leaks;
- Any fuelling or repairs shall be carried out in designated areas more than 100 m away from a water course and shall be supervised by personnel familiar with spill containment and clean up procedures.

The Site Manager shall ensure that there are sufficient absorbent materials and spill kits available on site to manage accidental spills. The location of and instructions on how to use this equipment shall be included in the site induction, and nominated personnel will be appropriately trained to use spill kits. The site environmental emergency plan outlines detailed instructions on how to respond to spills.

Any accidental spillages of fuels and oils, or other hazardous substances, shall be cleaned up immediately and be reported Site Manager. The following responses shall be undertaken:

- Minor spills: Are diesel and oil spills, with no human injury, contamination to water bodies nor other environmental receptors. The spill must be contained and cleaned up using available spill kit. The incident must be reported to the Site Manager and Environment officer, providing the following information:
 - Date, time and location;
 - Substance spilled and quantity; and
 - Action taken and any future remediation required.
- Major spills: Are spills that result in human injury or/and environmental contamination and water body contamination. The spill must be contained if possible and reported to the Site Manager, who shall then alert the appropriate emergency services (see Table 3). In addition to the information for a minor spill, the Site Manager shall also be informed of any immediate dangers, e.g. fire, explosion, release of chemical fumes.

Emergency response guidelines are discussed in section 5.6.

5.5.10 COMMUNITY NUISANCE AND HAZARDS

All personnel shall always respect the property rights of local farmers or local inhabitants and shall treat such persons with courtesy. A Method Statement will be developed detailing the specific measures that are to be implemented to manage nuisance and hazards to the community. Measures are detailed in the next sections and shall be included in the Method Statement.

5.5.10.1 Dust control

Dust control measures shall be used along the roads around and approaching the site, to reduce detrimental impacts to the local community and the general public. Control measures to be considered and implemented include the following:

- Use of water bowsers to dampen dust in dry conditions;
- Staged land clearing approach;
- Avoid stockpiling on-site, and if soil or sand is stockpiled, cover and limit height to 20 m;
- Avoid undertaking activities that will generate dust / disturb the ground during high winds;
- Use of temporary stabilising measures such as chemical soil binders;
- Re-instating areas cleared of vegetation as soon as is practically possible;
- Cover excavated material during transportation; and
- Limiting vehicle speeds in areas in proximity to dwellings and other habitation.

5.5.10.2 Noise control

Noise should be minimised as much as possible during construction works. The following measures shall be applied:

- Inform local residents of scheduled and duration of noisy activities. This can be through notices, WhatsApp or group text notifications, door-to-door knocking or letter dropping (responsibility of the Environment Officer);
- Regular maintenance and servicing of vehicles, machinery and equipment;
- Use hydraulic machinery in preference to pneumatic machinery where possible;
- Minimise the multiple use of noisy machinery and equipment;
- All machinery to be shut down or throttled back between periods of use;
- Implement engineering noise controls where necessary, e.g. silencers; and
- Acoustic enclosures may be required for fixed machinery such as generators, depending on the siting on the construction site.

The contractor(s) shall comply with the World Health Organisation guidelines (<https://iris.who.int/handle/10665/66217>) for the management of community noise.

5.5.10.3 Private means of access

Project contractors and subcontractors shall be restricted to the Project site and are not permitted to access residential properties. Where necessary, banksmen or spotters will assist private vehicles in accessing properties and coordinating the flow of traffic at intersections. A Traffic Management Plan (see section below) shall be implemented prior to and during construction.

5.5.10.4 Construction traffic

The Traffic Management Plan documents designated routes to and from the construction site for all construction vehicles, as well as identifying site entrances/exits. Where there are exceptions to the defined routes, approval from the Site Manager shall be obtained before the journey.

The Site Manager shall ensure this plan is completed and signed off by the Environmental Officer prior to the commencement of construction works and shall ensure compliance. Personnel deviating from the designated or approved routes will be appropriately disciplined.

5.5.11 FIRE PREVENTION

All Project team members shall take all necessary precautions to prevent the ignition and spread of fires caused either deliberately or accidentally as a result of the work being performed.

The Site Manager shall prepare a fire prevention and response plan for the management and prevention of fire. The plan shall include, but shall not be limited to, the following:

- Potential sources of fire risk;
- Procedures to be followed to control an accidental fire;
- Identification and location of fire-fighting equipment that will be maintained on site and deployed in the event of an emergency; and
- Location of assembly points across all work areas.

The site induction will include a briefing of the risks and potential consequences of starting fires. Employees shall also be warned of the risks of careless disposal of burning cigarette butts.

The Site Manager shall ensure fire-fighting equipment are available at specified locations on the site to address any fire related emergencies. Firefighting procedures will be included in the site induction and equipment must be strategically placed and clear signage must be in place to indicate their presence.

5.5.12 ENVIRONMENTAL MONITORING

Monitoring during construction activities (including both internal and external compliance audits) shall be undertaken to ensure the impacts on the environment and society are minimised and to evaluate how effective the environmental management has been, over an extended period. A preliminary environment and social monitoring plan is provided in Appendix G.

5.6 ENVIRONMENTAL EMERGENCY PLAN

An environmental emergency plan will be developed prior to construction activities and will be communicated to all members of the Project team including subcontractors and emergency services. The aim of the plan is to set out measures that shall be implemented during an environmental emergency. The plan shall detail controls for aspects such as:

- Site drainage control;
- Fuel handling procedures;
- Incident notification procedures;
- Pollution control equipment requirements;
- Procedures for the control of dust and mud; and
- Protection measures of water resources (i.e. the Khan and Okawayo River) from chemical spills or sediment laden run off.

Responsible staff will be trained in emergency procedures to form an emergency team, so that these procedures can be implemented swiftly and effectively. Periodic testing of emergency procedures will be undertaken by the Site Manager. The Environment Officer will observe the test and produce a report on the results. Any corrective actions are taken forward for review and approval.

Should an emergency incident occur, the Environmental Officer must be notified immediately. The emergency response will be co-ordinated by the Site Manager.

Protective measures, mitigation, clean up and remediation actions will be identified from the evaluation and shall be implemented, while observing caution to the sensitivities of the environment. A record of the emergency incidents will be drafted by the Project Manager which will include the nature of the corrective action undertaken.

The Site Manager and Project Manager shall investigate the cause of all incidents and must provide written results of the investigation and recommendations on how to prevent a recurrence of such incidents.

5.6.1 ENVIRONMENTAL EMERGENCY AND RESPONSE CONTACTS

The Environmental Officer will be the primary contact person in the event of an environmental emergency. The Environmental Officer has the authority and independence to request reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse environmental impact be anticipated.

In the event of an incident that requires the emergency services, the services that should be contacted are listed in Table 3.

Table 3 - Emergency contact details

Town	Ambulance	Police	Fire brigade	Onsite emergency contact
Karibib	+264 (64) 55 00 73/ +264 81 156 2665	+264 (64) 550 008	+264 81 422 1805	TBD
Omaruru	+264 (64) 570 037	+264 (64) 570 010	+264 (64) 57 0028	

For large-scale spills (>200 litres) and other significant environmental incidents, the Project Manager must notify the fire services, the office of the Ministry of Environment, Forestry, and Tourism (MEFT) (telephone +264 61 284 2111) and the Ministry of Mines and Energy (MME) by completing form PP/11 (telephone: +264 61 284 8111).

For the clean-up of smaller spills, the relevant material safety data sheet (MSDS) should be consulted to determine the appropriate clean-up procedures. Basic spill response training will be provided as part of the site environmental induction. Spill response equipment, including relevant MSDS copies, must be provided in areas where potentially environmentally hazardous chemicals may be used.

All environmental incidents, regardless of their size or significance, should be recorded and reported to either the Project Manager or the Environmental Officer.

6 REGISTER OF ENVIRONMENTAL RISKS AND ISSUES

6.1 INTRODUCTION

An environmental review of the Project has been completed to identify all the commitments and agreements made within the ESIA report. From this, a schedule of environmental commitments and risks has been produced, which details deliverables including measures identified for the prevention of pollution or damage to the environment during the construction phase. Table 4 summarises the environmental risks and issues as well as mitigation and monitoring measures.

Table 4 - Environmental risks and issues, mitigation and monitoring measures

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
1.1	Worker's campsite: Set-up	- Loss of vegetation - Visual impacts - Increased noise levels - Vermin and odours	- Search and rescue prior to clearing. - Suitable fencing around the site. - Risk assessment to be conducted prior to land clearing and excavation. - Proper planning and siting to take into consideration existing residents. - Good housekeeping - Appropriate waste disposal as per Waste Management Plan. - Compliance to the Method Statement.	- Site Manager to oversee the set-up of the campsite. - Waste management procedures. - Final check by the Site Manager and the Environmental Officer once the site has been established.	- Duration of site set-up - Final once-off check	- Site Manager - Environmental Officer
1.2	Worker's campsite: Operations	- Visual impacts - Litter - Increased noise levels - Vermin and odours	- Waste collection points and effective waste management should be established, ensuring that the site is consistently maintained in a clean and orderly manner. - Appropriate sewerage management.	- Weekly checks by Site Manager and weekly reports. - Monthly checks by the Environmental Officer and compilation of monthly reports.	- Weekly - Monthly	- Site Manager - Environmental Officer

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
			- No unauthorised visitors. - Implementation/enforcement of Method Statement and campsite rules.			
1.3	Worker's campsite: Reinstatement	- Soil degradation - Litter	- Implementation of Method Statement. - Ensure waste is timely removed from site. - Compliance to the Method Statement.	- Site Manager to oversee the removal and reinstatement of campsite area. - Final check by the Site Manager and Environmental Officer once the site has been reinstated.	- Duration of reinstatement - Final once-off check	- Site Manager - Environmental and Social Manager
2.1	Establishment and management of construction site	- Noise and dust - Residential visual amenity - Community severance	- Land clearing activities should be limited to the specific areas required for development, thus avoiding unnecessary disruption to surrounding ecosystems. - Designated access routes and points are to be used. - Suitable siting for waste collection areas and storage	- Daily visual observations. - Site Manager to oversee the set-up of the site. - Weekly checks by the Site Manager and compilation of weekly reports. - Monthly checks by the Environmental Officer compilation of monthly reports.	- Duration of site set-up. - Final once-off check	- Site Manager - Environmental Officer

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
			areas for equipment and machinery. - Construction activities to be conducted between dawn and dusk (day shifts only). - Downward lighting. - Practice good housekeeping. - Strict compliance with the Method Statement.			
2.2	Site establishment: Removal of vegetation	- Loss of vegetation - Potential habitat disturbance	- Restrict land clearing activities to the actual area planned for development. - Complying with all conditions and requirements specified in the land clearing permit. - Any relocation of nests must be agreed upon with the Environmental Officer. - No animals or birds may be caught, collected, consumed from site by contractors or their subcontractors. - Strict compliance with Method Statements.	- Conducting daily monitoring of land clearing activities. - Liaise with local farmers and offer cleared grass for reuse (composting etc.)	- Duration of construction works	- Site Manager - Environmental Officer

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
2.3	Site preparation: Removal of topsoil	- Loss of fertile soil (topsoil and subsoil).	- Separate topsoil and subsoil. Typically, topsoil stockpiles should be stored at a height not exceeding 2 m to preserve soil quality and microbial activities. - Overburden stockpiles should be stored following best practices to prevent degradation (e.g., limit storage to no more than 12 months, keep piles under 20 m high. - If construction extends longer than 12 months, effective stockpile management is required to minimise environmental impacts and preserve material quality. This includes implementing erosion control measures, dust suppression and proper management of drainage systems to prevent sediment runoff.	- Weekly checks of stockpiled soils.	- Weekly checks during the duration of construction activities.	- Site Manager - Environmental Officer

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
			- Strict compliance with the Method Statement, particularly in relation to the control of sediments.			
2.4	Site preparation and excavation	- Potential disturbance / damage to undiscovered archaeological remains	- Site Manager or appointed personnel to supervise excavation work. - In the event of a discovery, works to cease until advice from the specialist is obtained (Chance Find Procedure to be followed).	- Duration of construction activities.	- Duration of construction works	- Site Manager
2.5	Site preparation and excavation: Silt management	- Silt surface run-off during rainfall events - Soil erosion	- Ground excavation activities and other construction activities shall be avoided during heavy rainfall events to minimise silt laden surface runoff. - Method Statement should take into account the control of sediments flow.	- Daily inspections to be conducted to detect signs of silty surface water run-off.	- Daily	- Site Manager - Environmental Officer
3.1	General construction activities:	- Generation of waste (including material	- Implementation of procedures outlined in the site waste management plan.	- Daily and weekly inspections to monitor	- Daily - Weekly - Monthly	- Site Manager - Environmental Officer

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
	Generation of waste	- waste, construction waste) - Odours and pests	- Waste to be segregated, appropriately stored in appropriately marked areas and timeously disposed of. - Maintain good housekeeping across all areas of the site. - Waste to be disposed of at a designated waste disposal site. - No waste to be burnt onsite. - Waste management procedures should be incorporated into the site induction and training program.	- waste management practices. - Monthly inspections of nominated waste disposal routes. - Update of the waste management plan as and when required.		
4.1	Operating machinery and equipment	Local community: - Increase in local noise levels. - Hydrocarbon spill risks - Dust and vehicle emissions impacting air quality	- Avoid idling of machinery and equipment when not in use. - Minimise the multiple use of noisy machinery and equipment. - Where possible, noisy machinery and equipment should be positioned away from residential and commercial properties.	- Daily and weekly inspections by the Site Manager and compilation of weekly reports. - Monthly inspections by the Environmental Officer - The Environmental Officer and Site Manager should engage the surrounding communities	- Daily - Weekly - Monthly	- Site Manager - Environmental Officer

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
			- Vehicles to be in good working order, well maintained and serviced as per the manufacturer's requirements. - Prioritise the use of equipment with lower sound power levels. - Contractors are required to ensure the use of optimised equipment with lower noise levels. - Notice to surrounding communities of when noisy activities are to be undertaken.	prior to and during construction activities.		
4.2	Operating machinery and equipment	Construction workers: - Reduced local air quality - Increased noise levels	- Appropriate personal protective equipment (PPE) to be worn by the workforce (e.g. face masks and ear plugs). - Site inductions	- Daily and weekly inspections by the Site Manager and compilation of weekly reports. - Monthly checks by the Environmental Officer - Biannual noise monitoring	- Daily - Weekly - Monthly - Biannual	- Site Manager - Environment and Social Manager
5.1	General construction works: Excavation	Local community: - Dust generation and deposition.	- Application of dust suppression to suppress dust generated during construction activities.	- Daily visual observations. - Weekly inspection by the Site Manager and	- Daily - Weekly - Monthly	- Site Manager - Environmental Officer

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
	and/or transporting materials to site		- Avoid dust generating activities during periods of high wind. - Avoid overfilling excavated materials in trucks. - Avoid stockpiling overburden materials to a height exceeding 20 m. - Cover excavated materials during transportation. - Limit vehicle speeds on-site.	- compilation of weekly reports. - Monthly inspections by the Environmental Officer and compilation of monthly reports.	- Biannual	
5.2	General construction works: Structure above the local sightline (masts, cranes)	- Impacts to resident's visual amenity. - Collision risks for birds in flight	- Masts and cranes shall only remain on-site for the duration of their required activities and must be removed by contractors upon completion of work.	- Monthly inspections by the Site Manager	- Monthly	- Site Manager
5.3	General construction activities	- Residential amenity	- Light shall only be used when necessary and shall be designed to minimise spillage of light and orientated away from residential properties.	- Upkeep the complaint register.	- Monthly	- Site Manager - Environmental Officer

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
6.	Construction traffic	- Increase in traffic volume, noise and community severance - Potential traffic flow disruption on the C33 and D1941 routes.	- Liaise with the Road Authority in Karibib prior to the commencement of road works. - Construction traffic to follow designated routes, as per the traffic management plan. - Construction vehicles to enter and exit site at designated locations. - Bankmen shall be used to guide the flow of traffic at intersections (site entry points). - Erect appropriate signage at site access intersections. - Construction traffic convoys should be properly planned. Heavy load vehicle convoys should not be scheduled during peak hours (7:30 – 09:30, 12:30 – 13:30, and 16:00 – 17:00). - No parking or idling on roads and implement traffic management procedures to avoid vehicles queuing on roads when entering the site.	- Regular review of the traffic management plan. - The Site Manager shall conduct weekly spot inspections to ensure construction traffic is following designated routes. Any contraventions are to be included in the weekly report. - Conduct biannual noise monitoring.	- Daily - Weekly - Monthly - Biannually	- Project Manager - Site Manager

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
7.1	Diversion of the D1941 district route	- Diversion to alternative roads and altering traffic baseline	- Early notice about the temporary D1941 road closure through notices and road signs. - Provide notice and have appropriate road signages in place for alternative roads (detours) to be used. - Compliance with the Method Statement.	- Regular community engagement	- Duration of works	- Project Manager - Site Manager -
7.2	Diversion of the D1941 district road	- Increased community severance and reduced access to private properties.	- Appropriate road signs in place to warn road users about the road works and detour roads. - Early notice to road users about road works. - Compliance with the Method Statement.	- Weekly inspections by the Project Manager and Site Manager.	- Duration of works	- Project Manager - Site Manager
8.	Dewatering / pumping of groundwater	- Discharge of silty water and potential spread of contaminants.	- Compliance to Method Statements. - Method Statements to clearly state the discharge/containment of contact and non-contact water. - Suitable bunding and storage of oil, fuels and chemicals.	- Sampling of any water to be discharged into the environment. - Weekly checks by the Site Manager and aspect is to be included in the weekly report.	- Daily - Weekly - Monthly	- Site Manager - Environmental Officer

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
			- No excavation activities are to be conducted during rainfall events. - Any water to be discharged shall meet accepted water quality standards.	- Monthly checks by the Environment and Social Manager and the aspect is to be included in the monthly report.		
9.1	Storage of fuel, oils and chemicals	- Oil, fuel spills contaminating soils, surface and groundwater resources	- Certificate to store and dispense fuel onsite must be acquired. - Store fuel, oil and chemicals in lockable areas, on a flat impermeable area, with a bund that is capable of storing 110% of the stored capacity. - Tanks and containers should be labelled. - Appropriate safety signs around storage area, e.g. no smoking. - Appropriate PPE to personnel. - Site induction and appropriate training of nominated persons. - Ensure the site environmental emergency plan is kept up to	- Containers and tanks are to be inspected daily for leaks. - Weekly inspections by the Site Manager. - Monthly inspections by the Environmental Officer and any spills should be reported and addressed.	- Daily - Weekly - Monthly	- Site Manager - Environmental Officer

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
			date throughout the duration of the construction works.			
9.2	Delivery of fuel and oil	- Spills from delivery vehicles causing soil, surface and groundwater contamination.	- All deliveries to be supervised. - Storage tanks to be checked prior to delivery (level and correct tank). - Refuel in designated area, on impermeable surface away from drains. - Report spill as soon as possible. - Contain and clean up spill in accordance with emergency procedures. - Drip trays used where required. - Spill kits to be located at nominated locations around site. - Site Induction and appropriate training of nominated persons. - Ensure the site environmental emergency plan is kept up to date throughout the duration of the construction works.	- Inspections upon deliveries. - Inspections of vehicles to ensure they are within service and are not defective. - Daily and weekly inspections and reports by the Site Manager. - Monthly inspections by the Environmental Officer.	- Daily - Weekly - Monthly	- Site Manager - Environmental Officer

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
10.1	General construction activities: Energy use	- Use of resources	- Turn off machinery and equipment when not in use. - Regular maintenance of machinery and equipment. - Minimise / optimise workforce travel. - Source materials locally. - Source sustainable material where possible. - Apply the waste hierarchy by prioritizing waste reduction, reuse, and recycling.	- N/A	- N/A	- Contractors and subcontractors
10.2	General construction activities: Material use	- Use of resources	- Source materials locally to reduce transportation (i.e. prioritise hardware stores in Karibib, Omaruru or other towns within the Erongo Region). - Source sustainable material where possible. - Apply the waste hierarchy by prioritising waste reduction, reuse, and recycling.	- N/A	- N/A	- Contractors and subcontractors

Ref No	Activity	Risks and Potential Impacts	Management/Mitigation Measures	Monitoring Requirements	Frequency	Responsibility
11	Vehicles movements onsite	- Hazards to workers (potential collision leading to injuries).	- Clearly marked areas around site for worker and vehicle access. - Speed limit of 40km/hr - Site induction and training of staff. - Reversing of vehicles overseen with appropriate warnings (lights / sounds).	- Site Manager to conduct weekly inspections to ensure critical intersections are clearly marked. - Monthly inspection by the Environmental Officer. Aspects are to be reported in the monthly report.	- Weekly - Monthly	- Site Manager - Environment and Social Manager

7 IMPLEMENTATION OF THE CEMP

This CEMP:

- A. Has been prepared pursuant to the contract with the Proponent;
- B. Has been prepared on the basis of information provided to ECC up to January 2025;
- C. Is for the sole use by the Proponent, contractors and subcontractors during the construction phase;
- D. Must not be used by any person other than (1) the Proponent (2) Contractors and subcontractors; and
- E. Must not be copied without the prior written permission of ECC.

ECC has prepared this CEMP based on information provided by the Proponent, specialist reports and the ESIA report (as amended). These have been reviewed by the competent authority.

APPENDIX A – DOCUMENT CHECKLIST

Document	Purpose	Mandatory	Owner
Contact details	Register of key construction personnel, their contact details and emergency numbers.	Prior to construction. Checked monthly to ensure it is up to date.	Site Manager
Site induction register	A register shall be maintained to record all personnel working onsite, including details of when they complete site induction and training sessions.	Monthly	Site Manager
Complaints register	Name and contact details of the complainants, date and time of the complaint, nature of complaint, action taken to resolve issues and date of complaint handover. See Appendix C.	Prior to construction. The register shall be amended when complaints are received and when complaints are resolved.	Environmental Officer
Weekly compliance report	Checklist of what should be checked onsite and any non-compliance or concerns onsite to be recorded and resolution logged. See Appendix D.	Checklist to be completed weekly prior to the commencement/during construction activities.	Site Manager
Monthly compliance report	The report shall contain a brief description of any areas of non-conformance with the contract specification, the reason for the non-conformance, the responsible party, the consequence, the corrective action (s) taken and any necessary follow up measures required. See Appendix E.	The report is to be compiled monthly.	Environmental Officer
Machinery and equipment register	Register of all machinery and equipment on site, including the following information: - Piece of machinery and equipment; - Make and model;	Checklist to be completed prior to commencement of construction activities.	Project Manager

Document	Purpose	Mandatory	Owner
	- Frequency of required service and scheduled dates; - Date of last maintenance and test; and - Notes of any issues or concerns.		
Method statements	To outline the specific procedures, steps and safety measures to be followed to conduct various construction activities. Method Statements shall be reviewed and updated to ensure lessons are learnt.	Monthly	Contractors and subcontractors – To be approved by Site Manager
Waste management plan	The waste management plan outlines waste streams and identify the best treatment and disposal option for each one, applying the waste management hierarchy and avoiding as much waste as possible ending up at landfill or being burnt. The Waste management plan also outline any potential economical and investment requirements for the treatment and / or disposal of waste. Appendix F.	Monthly	Environmental Officer
Traffic management plan	To document designate routes for construction vehicles to and from the site, access points, any traffic calming measures and specific times when construction traffic should avoid journeys.	Prior to the commencement of construction activities. To be updated monthly or as required.	Project Manager
Fire prevention plan	Fire and emergency management measures, and pollution incident response management plan	Required prior to the commencement of construction activities.	Site Manager

Document	Purpose	Mandatory	Owner
	requirements. Identifies and concentrates on potential incidents and emergencies that could occur on the project site and describes the general policy and approach that should be followed when dealing with an emergency or incident, such as fire, explosion, spills and traffic accidents.	The document is to be updated monthly or as required.	
Environmental emergency plan	The document sets out measures that shall be implemented during an environmental emergency, including but not limited to: - Site drainage controls; - Fuel handling procedures; - Incident notification procedures; - Pollution control equipment requirements; and - Procedures for the control of dust and mud.	Required prior to the commencement of construction activities. To be updated monthly.	Site Manager
Approvals, permits and licences required			
ML 238 environmental clearance certificate	A valid environmental clearance certificate is required for all the Project's listed activities (in terms of the Environmental Management Act No. 7 of 2007 and its 2012 Regulations).	Required prior to the commencement of the construction phase. The certificate shall be renewed after three (3) years.	Environmental Officer
Tenement licence (ML 238)	Valid mining licence for the extraction and processing of minerals (Twin Hills Gold Project).	Required prior to the commencement of the construction phase.	Environmental Officer
Consumer Installation Certificate	Consumer installation certificate required in terms of the Petroleum Products and Energy Act (Act 13 of 1990) and	Required prior to the installation of the fuel consumer tank onsite.	Environmental Officer

Document	Purpose	Mandatory	Owner
	associated amendments and regulations, for the storage of approximately 31 000 litres of diesel fuel on-site.		
Environmental clearance certificate: 66 kV powerline	A valid environmental clearance certificate is required for the erection of the 66 kV powerline (listed activity as per the EMA Act) from the NamPower substation to the Project site.	Required prior to the development of powerline infrastructure The certificate shall be renewed after three (3) years.	Environmental Officer
Consent granted by the NCCA to erect obstacles within the Karibib Airforce Base aerodrome	Approval or letter of no objection from the Namibia Civil Aviation Authority (NCAA) required as the Project powerlines are within 5 nautical miles of the Karibib Airforce Base.	Required prior to the development of the mine powerline infrastructure (66 and 11 kV powerline).	Environmental Officer
Accessory works permit	Authorisation required for the development of mine infrastructure (i.e. processing plant, linear infrastructure, waste management facilities etc).	Required prior to the commencement of the construction phase.	Project Manager and Site Manager
National Heritage Council Consent	Consent for the demolition of the colonial-era building and the exhumation, relocation and reburial of the grave sites.	Consent from NHC is required prior to the commencement of any earthwork activities.	Site Manager
Licence for the Okawayo River diversion and construction of weir dam.	The Okawayo will need to be diverted, as its current course intersects with the area proposed for mine infrastructure development. The river diversion is required to mitigate potential safety risks.	Required prior to the commencement of river diversion works.	Site Manager

Document	Purpose	Mandatory	Owner
Wastewater discharge licence and tailings waste disposal licence.	The licence issued in terms of the Water Resources Management Act No.11 of 2013 and the Regulations of 2023 authorises the Proponent to discharge treated and untreated wastewater into designated sewer systems and the disposal of byproducts of the mining process.	Required prior to the commencement of mining operations.	Environmental Officer
Permit for the clearing of land	A land clearing permit issued under the Forest Act No. 12 of 2001 (as amended in 2005) authorises the Proponent to clear approximately 1 730 hectares (ha) of land planned for development and mining activities.	Required prior to land clearing activities. The licence shall be renewed after three (3) months, if required.	Environmental Officer
Water abstraction licence	The licence authorises the Proponent to abstract bulk water from local boreholes for the Project.	Required prior to the commencement bulk groundwater abstractions.	Environmental Officer
Licence for the diversion of the D1941 district road	Approval from the RA is required, as the D1941 district road traverses the mine footprint and overlaps with areas planned for development.	Required prior to the commencement of road diversion works.	Site Manager

APPENDIX B – TEMPLATE FOR KEY PERSONNEL CONTACT DETAILS

Role	Name	Contact details
Project Manager		
Site Manager		
Environmental Officer		
Ministry of Environment, Forestry and Tourism		
Ministry of Mines and Energy		
Ministry of Agriculture, Water and Land Reform		
Erongo Regional Council		
Karibib Town Council		
Karibib Air Force Base		
Karibib Police Station		
Omaruru Municipality		
NamPower		
Roads Authority		
Karibib Ambulance Services		
Karibib Fire Services		

APPENDIX C – COMPLAINT REGISTER TEMPLATE

Name	Contact Details	Date and Location	Nature of Complaint	Action Taken	Nominated Person to Resolve Issue (Signature)	Date Resolved/ Closed out

APPENDIX D – DAILY/WEEKLY COMPLIANCE CHECKLIST

INSPECTION DATE: _____

INSPECTION COMPLETED BY: _____

SUMMARY OF CONSTRUCTION ACTIVITIES OCCURRING:

CONTRACTORS ONSITE:

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
1.1	Worker campsite: Set-up - Minimise loss of vegetation, keep noise levels as low as possible, screen the site, maintain good housekeeping. - Enforcement of QCPs.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	
1.2	Worker campsite: Operations	Site Manager		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
	- Keep noise levels as low as possible, screen the site, maintain good housekeeping, waste collection points, sewerage management system and no unauthorised visitors.	Environmental Officer			
1.3	Worker campsite: Reinstatement - Ensure waste is removed from site and the site is reinstated back to its original condition. - Enforcement of QCPs.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	
2.1	Establishment and management of construction site - Erect a site notice board at the entry point of all contractors working on the Project. - Construct the guard camp at the earliest stage of the Project to ensure security and monitoring from the outset.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
	- Use designated access routes and points. - Suitable siting of construction office, waste collection area and storage area for construction equipment. - Downward lighting. - Maintain good housekeeping. - Enforcement of QCPs.				
2.2	Site preparation: Removal of vegetation - Reuse of grass or proper disposal. Where possible, grass can be offered to neighbouring farmers. - Suitably qualified contractor to remove, store and reinstate trees. - Any relocation of nests must be agreed with the Environment and Social Manager.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
	- No animals or birds may be collected, caught (poached), consumed or removed from site by the contractors or personnel on site. - Enforcement of QCPs.				
2.3	Site preparation: Removal of topsoil - Recover, store and reuse for final landscaping. - Separate topsoil and subsoil. - Appropriately store the soil in line with best practice to avoid degradation (e.g. store overburden materials for no more than 12 months and in piles not exceeding 20 m high, cover to protect from wind). - Enforcement of QCPs.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	
2.4	Site preparation and excavation: Potential disturbance/damage of	Site Manager Site Supervisor		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
	undiscovered archaeological remains - Site Manager or Site Supervisor to oversee all ground excavation work. - In the event of a discovery, works to cease until advice from the specialist is obtained.				
2.5	Site preparation and excavation: Silty surface run-off - Avoid specific ground excavation activities during heavy rainfall events to minimise silt laden surface runoff, except when: Appropriate drainage systems are in place to prevent surface water from entering water resources.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	
2.6	Demolition activities: The existing colonial ruined building	Site Manager		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
	- implement a Method Statement. - Demolition and removal of materials to be undertaken by a qualified contractor. - Demolition work to be supervised by the Site Manager.				
3.1	General construction activities: Generation of waste - Waste to be collected, separated and stored in appropriately marked areas/containers (e.g. wood, metals, building rubble). - Waste storage areas shall be appropriately signed; well maintained and good housekeeping shall be maintained/upheld. - Waste temporary stored on-site shall be disposed of at the Karibib waste disposal site. - No waste shall be burnt on-site.	Site Manager Environmental Officer Contractor employees		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
4.1	Operating machinery and equipment - Avoid idling of machinery and equipment (switch off when not in use). - Minimise multiple use of noisy machinery and equipment. - Where possible, position noisy machinery and equipment away from residential properties. - Vehicles are to be maintained to ensure they are in good working condition. - Prioritise equipment with low sound power levels. - Contractors are required ensure the use of noise-reduction measures, such as silencers to maintain optimised noise levels. - Notice to the surrounding farming community when noisy activities are to be undertaken.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
	- Conduct construction activities between dawn and dusk (day shift only) unless extraordinary circumstances require night work – requires special approval by Osino Management).				
4.2	Operating machinery and equipment: Accidents and injuries -Appropriate PPE – face masks if required and ear plugs.	Site Manager Environmental Officer Contractor employees		Yes ☐ No ☐ N/A ☐	
5.1	General construction works: Moving/transporting excavated soils, materials and equipment - Application of dust suppression measures e.g. water spray. - Avoid scheduling activities such as land clearing and excavation on windy days to minimise dust generation. - Avoid overfilling excavated materials in trucks.	Site Manager Environmental Officer Contractor employees		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
	- Limit vehicle speeds on-site. - Avoid stockpiling.				
5.2	General construction works: Tall infrastructure -Masts and cranes should only be present on-site for the duration necessary to support the development of the 66 kV and 11 kV infrastructure, as well as the construction of the process plant and associated facilities. - Site boundary fence to be erected as soon as practicable.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	
5.3	General construction activities: Residential amenity - Avoid flash lighting. - Lighting shall only be used when necessary and should be optimised and orientated away from residential properties.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
6	Construction traffic: Increase traffic volumes, noise and community severance. - Construction traffic to follow designated routes. - Construction vehicles to enter and exit site at designated locations. - Schedule delivery of heavy equipment to avoid peak times (07:30 – 09:00, 12:30 – 13:30 and 16:00 – 17:00). - No parking or idling on roads and implement traffic management to avoid vehicles queuing on roads. - Traffic calming measures to direct the flow of traffic to and from site. - Use banksmen to manage heavy load vehicles at entry and exit points.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
7.	Traffic management: D1941 road diversion and alteration of traffic flow on the C33 road. - Appropriate road signage on speed limits, detours to be taken etc. - Early notice to the community on road works through appropriate notices and signs along the road to be upgraded. - Enforcement of QCPs.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	
8.	General activities: Fuel, oil and chemical spills - Maintenance of vehicles. -Spill kits to be located in each domain, and staff should be trained to handle spills.	Site Manager		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
9.	General construction work: Direct and indirect impacts on the terrestrial environment, - Prior to land clearing, excavation and construction activities, conduct an inventory of different life forms present in the Project area. - Suspend any operations until the wildlife have been safely relocated from the area designated for development. - Maintain proper housekeeping across all domains to prevent attracting vermin to the site (i.e., ensuring that waste is disposed of promptly, food sources are properly stored, and the site is kept clean and organised). - Each construction activity should have a corresponding Method Statement, and work should be undertaken in	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
	accordance with the procedures outlined in the Method Statement. - Enforcement of QCPs.				
10.1	General construction activities: Visual intrusion and noise impacts to the farming community - Construction work to stick to schedule. - Provide advance notice to key stakeholders and surrounding community. - Enforcement of QCPs.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	
10.2	General construction activities: Littering - Good site housekeeping. - Waste bins across all domains, which should be regularly emptied. - Avoid food waste being thrown into the environment.	Site Manager Environmental Officer Contractor employees		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
10.3	General construction: Lighting - No night working (construction activities should be conducted between dawn and dusk).	Site Manager		Yes ☐ No ☐ N/A ☐	
11.	Dewatering/pumping of groundwater - Ensure dewatering and abstraction permits are obtained, and that only the permitted volumes are dewatered or abstracted. - Application of Method Statement - No water from construction activities should be discharged into water resources (i.e. Okawayo and Khan River). -Enforcement of QCPs.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	
12.	Excavation during rainfall events				

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
	- No land excavation should be conducted during rainfall events, except when: • Appropriate drainage systems are in place to prevent surface water from entering water resources.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	
13.1	Delivery of fuel and oil - All deliveries are to be supervised. - Drip trays are to be used during refuelling. - Conduct regular inspection of storage containers. - Spill kits to be located around site. - Report spills as soon as possible. - Ensure the site environmental emergency plan remain up to date throughout the construction phase.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
13.2	Storage of fuel and oils - Certificate for the storage and dispense of fuel should be in place. - Fuel should be stored in a lockable area, on a flat, impermeable area and within bunds that is capable of storing 110% of stored capacity. - Tanks and containers should be labelled. - Appropriate safety and warning signs should be in place (e.g. no smoking). - Refuel in designated areas, on impermeable surface away from drains, residential properties and at least 50 m away for water resources - Personnel involved in the handling, storage and dispense of fuel, oil and chemicals should wear appropriate PPE.	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
	- Conduct site induction and provide routine training to nominated personnel. - Ensure the site environmental emergency plan remain up to date during the construction phase.				
14.	General construction activities: Energy use - Turn off machinery and industrial equipment when not in use. - Regular maintenance of machinery and equipment. - Minimise/optimise workforce travels. - Where applicable, source materials locally and contract local contractors. - Apply the waste management hierarchy across all work areas.	Site Manager Environmental Officer Contractor employees		Yes ☐ No ☐ N/A ☐	

Ref No	Item	Responsibility	Construction Activity Status (Underway/Complete)	Compliant	Notes / Action Taken / Corrective Action Required
15.	General construction: Material use - Where applicable, source materials locally to reduce transportation. - Source and use sustainable materials where possible. - Apply the waste management hierarchy across all work areas.	Site Manager Environmental Officer Contractor employees		Yes ☐ No ☐ N/A ☐	
16.	Vehicles movements on-site - Clearly mark areas on site for workers and vehicles access. - Speed limit of 40 km/h (Include this information in worker inductions, safety briefings, and contractor agreements). - Vehicles and trucks should be equipped with appropriate warning systems (light and sound).	Site Manager Environmental Officer		Yes ☐ No ☐ N/A ☐	

APPENDIX E – MONTHLY COMPLIANCE REPORT TEMPLATE

INSPECTION DATE: _____

INSPECTION COMPLETED BY: _____

APPROVED BY: _____

SUMMARY OF CONSTRUCTION ACTIVITIES OCCURING:

CONTRACTORS ON-SITE:

NON-CONFORMANCE

AREA OF ACTIVITY:

REASON:

RESPONSIBLE PARTY:

RESULT(S):

CORRECTIVE ACTION (S) TAKEN:

FOLLOW-UP ACTION TO BE TAKEN:

ADDITIONAL COMMENTS:

GOOD PERFORMANCE

Description of activity or action in which contractor went beyond compliance towards responsible care of the environment:

ADDITIONAL COMMENTS

APPENDIX F – WASTE MANAGEMENT PLAN TEMPLATE

INTRODUCTION

The aim of this Waste Management Plan is to achieve sustainable waste management. The main purpose is to outline waste streams and identify best treatment and disposal option for each one, applying the waste management hierarchy and avoiding as much waste as possible ending up at landfill or incinerator. In addition, it also outlines any potential economical and investment requirements for the treatment and / or disposal of waste.

This Waste Management Plan is a live document and should be updated during the annual review, which shall be undertaken by the Site Manager and the Environment and Social Manager.

PRINCIPLES

The following principles should be applied to the management of waste on-site:

- The waste management hierarchy (avoid, reuse, recycle, recovery and disposal) should be applied for each waste stream so that the impact on the environment is minimise environmental impacts;
- Waste collection areas shall be determined and demarcated prior to the commencement of construction activities; and
- Waste bins shall be labelled and emptied on a regular basis to avoid pests and bad odours.

Table 1 – Waste management roles

Individual or party	Role
Proponent	
Contractor	

The following waste management measures shall be followed:

- Waste will be collected, separated and temporary stored in a designated area which will be appropriately signposted to ensure proper identification, organisation and compliance with management protocols;
- Waste collection bins (containers) will be labelled, of appropriate design to ensure that no waste can escape (e.g. wood, metals, building rubble);
- Waste storage areas shall be kept clean and tidy at all times;
- Waste collection bins shall be emptied to avoid pests and bad odours; and
- No waste will be burnt on-site.

Any hazardous materials, including used oil shall be managed in a safe and responsible manner to prevent contamination of soils, pollution of water resources. Hazardous and non-hazardous waste shall be stored separately at all times.

WASTE MANAGEMENT ARRANGEMENTS

The Project shall have a dedicated waste collection, sorting and pick up area. This area shall be fenced signposted, and access shall be by those authorised.

The following information shall be provided in this section:

- *Location of the dedicated area;*
- *Arrangements to appropriately secure and designate the area (fencing, locked gate);*
- *Access arrangements;*
- *Drainage arrangements;*
- *Set up of the site;*
- *Authorised personnel; and*
- *Any rules or code of conduct.*

WASTE GENERATED (SOURCES)

This section shall provide all waste streams, types and quantities, allowing a review to be undertaken and most appropriate waste disposal options to be identified and implemented. See example below.

Table 2 – Waste types and management (an example)

Waste type	Estimated quantity	Waste Management	Waste carrier information and site
Site clearance			
Vegetation	10 <i>Acacia erioloba</i>	Recover, store and replant trees. Other bushes etc, give away to community.	Company name: Contact number:
Excavated soils			
Structures demolition			
Bricks	1 ton	Reuse	
Construction			

Waste type	Estimated quantity	Waste Management	Waste carrier information and site
Packaging and plastic			
Steel and metals			
Oil, grease and chemical containers			

APPENDIX G – MONITORING PLAN

Item	Rationale	Monitoring area / site description	Frequency	Phase (construction, operations, decommissioning)	Parameters	Quality control point
Groundwater level monitoring	- To monitor water resource availability versus the Project water requirements (dynamic and static water levels). - To identify (early warning) impacts on users and implement the necessary measures promptly. It is essential to establish a proactive monitoring and response system.	The baseline groundwater monitoring network.	Monthly	All	Water levels trends throughout the Project lifecycle.	Yes
Groundwater quality monitoring	To establish a baseline to allow the identification and early warning of contamination due to abstraction and construction works.	The baseline groundwater monitoring network	Quarterly	All	Chemical analysis in terms of the requirement of Water Resources Management Act No. 11 of 2013.	Yes
Potable water monitoring	To determine the suitability of water for drinking during the construction phase.	The contractors tanks and	Monthly	All	The potable standards as stipulated in the	Yes

Item	Rationale	Monitoring area / site description	Frequency	Phase (construction, operations, decommissioning)	Parameters	Quality control point
		other sources to be determined as the Project develops.			Water Resources Management Act No. 11 of 2013.	
Noise monitoring	To evaluate and quantify construction-related noise impact on neighbouring farms.	Specific locations that have been determined by the noise specialist.	Bi-annually	A. Prior to construction commencement and during construction B. Operations	Decibels (dB)	Yes
Air Quality (Dust fallout, PM _{2.5} and PM ₁₀ monitoring)	- To monitor dust fall out and particulate matter from construction activities such as land excavation and vehicle operations. - To assess changes in air quality resulting in potential impact to workers and nearby communities.	A. The baseline dust fall out monitoring network	A. Monthly, in terms of the 28-32 SANS cycle B. Quarterly	All	A. SANS standards (mg/m ² /day) for residential areas. B. WHO Air Quality Interim Targets (µg/m ³)	Yes

Item	Rationale	Monitoring area / site description	Frequency	Phase (construction, operations, decommissioning)	Parameters	Quality control point
		B. The monitoring areas as determined by the specialist.				
CEMP compliance monitoring	To assess the degree of compliance to the commitments and requirements as outlined in this CEMP.	All construction areas	Monthly	Construction phase	N/A	Yes
Avian monitoring	To assess bird collision with the mine powerline.	66 kV and 11 kV powerline servitude	Bi-annually	All	N/A	No

APPENDIX H - WEED AND SEED INSPECTION FORM

SECTION 1 – PROJECT MANAGER TO COMPLETE (AT LEAST 2 DAYS PRIOR TO EQUIPMENT ARRIVING)

Project Manager or responsible person bringing equipment to site:

Name:		Department:	
Site:		Equipment Arrival Date:	

Details of the owner of the equipment:

Equipment owner:		Company Name:	
Equipment type:		Equipment ID:	
Date Equipment was washed:		Inspected By:	
Where was the equipment last used:			

SECTION 2 - ENVIRONMENTAL CONTROL OFFICER TO COMPLETE PRIOR TO ANY GROUND WORKS COMMENCING

Inspection area	Requirements	Compliance		
		Yes	No	NA
Body works	Free of all soil and vegetation?			
Bumpers	Hollow sections and attachment points free of dirt			
Tyres	Free of all soil and vegetation			
Dual Wheels	Free of all soil and vegetation			
Canopy	Free of all soil and vegetation			
Radiator	Free of all soil and vegetation – specifically look for seed heads			
Interior	Free of soil and vegetation – specifically look for seed heads in upholstery and under mats			
Storage compartments	Free of all soil and vegetation			
Jack and tool kit	Check tool roll and spare wheel are clean			
Racks and bull bars	Free of all soil and vegetation			

Inspection area	Requirements	Compliance		
		Yes	No	NA
Ropes/ Straps/ Cages	Free of all soil and vegetation? Carefully check Velcro and tensioning devices			
Tracks	Carefully check tracks are clean of soil and vegetation			

Actions required:	Accountability	Complete By:	Completed?

On inspection of the aforementioned equipment it has been found to be in a clean and weed seed free state, and has been approved for use on the _____ Project.

Please ensure a copy of this certificate remains with the equipment for the operator while completing the site works.

SECTION 3 – BOTH PARTIES TO COMPLETE

Approval / Sign Off		Signature	Date
Environmental Officer: _____	I certify that the equipment meets the company standards		
Project Manager: _____	I understand the condition applicable to this certificate and will ensure the equipment will arrive on site in the state in which it was inspected		
Operator/Company Rep:	I certify that the equipment has been cleaned prior to being		

Approval / Sign Off		Signature	Date
	sent to site. The equipment will arrive on site as it was inspected or will arrive on site in a state that will meet the expectations of this permit.		

Records office use only:

(Please Tick)

(Please Tick)

Actions forward to project		Copies of certificates forwarded to project	
Certificate filed:		Signature	

APPENDIX I – CEMP OF EACH MINE DOMAIN

Domain 1 - Surface infrastructure

Domain 1 - Surface Infrastructure		
Domain manager	Mine Manager	
Description	This domain includes linear surface infrastructure such as access roads and tracks, powerlines, borrow pits, quarry, attenuation dam, river diversion wall/dam.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Accessory works permit	A. Renewed every 5 years or when a material change occurs.
	B. River diversion licence – obtained from MALWR	B. Compliance to licence conditions such as ensuring that water abstraction volumes are recorded and not exceeded.
	C. A valid environmental clearance certificate for the powerline.	C. Compliance with the approved EMP.
	D. Land clearing permit	D. Compliance with the permit conditions. The permit is to be renewed every three months (if required).
	E. Permit for the D1941 road diversion	E. Compliance with all permit conditions.
	F. NCCA consent for erecting obstacles within the Karibib Air	F. Compliance with the conditions as set out in the consent.

Domain 1 - Surface Infrastructure		
	Force Base aerodrome	
Potential issues or impacts	Groundwater – Soil and groundwater contamination from hydrocarbon spills from construction containers. – The potential risk of intercepting the groundwater table. Surface water – Altered natural flow of surface water (river diversion works). – Potential for sediments runoff and erosion. – The use of chemicals (e.g. fuels, oils and lubricants) can leak or wash into surface waters. Air quality – The potential for land clearing activities and site leveling to generate dust that could impact neighbouring communities. Noise – Noise impacts on employees. – Community severance and disruption of social interactions. Traffic – Alteration of traffic flow on the C33 road during road construction/diversion work (i.e. the use of alternative roads and temporary closure of the D1941). Social – Noise and dust nuisance to neighbours from construction activities. – Potential disruption of social interactions. – Social tension between different groups or individuals within the community and mine construction workers. Biodiversity – Burrows acting as pitfall traps. – Potential for birds to collide with construction equipment (e.g. cranes) – Potential risk of wildlife colliding with Project vehicles. – Loss of vegetation and habitat destruction due to land clearing activities. Visual – Disruption to the visual landscape and diminished sense of place. – Safety risks posed by masts and cranes, including potential interference with aircraft operations during take-off and landing at the Karibib Air Force Base. Heritage – Potential to unearth and disturb heritage objects or resources.	

Domain 1 - Surface Infrastructure	
Targets and reporting	Community – Zero un-resolved community complaints relating to dust or noise. ○ This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Soil, surface/groundwater contamination – Protect soils and preserve water resources by implementing measures to prevent contaminations. ○ This will be achieved through the timely management and reporting of contamination incidents. Roads/aerial – Enhance the efficiency and safety of both road and aerial operations during construction activities. ○ This shall be achieved through appropriate road signs, clear signage for aerial traffic, proper lane marking and use of warning systems that communicate potential hazards. Rehabilitation – Rehabilitate dis-used roads, burrows and tracks that are deemed uneconomical or viable for future use. ○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.
	To minimise the effects the above-mentioned impacts on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:

Domain 1 - Surface Infrastructure		
Construction management measures	Technical requirements	Overhead powerline – Ensure visual markers (spherical and of diameter of not less than 60 cm) are installed (alternating) on the powerline contrast with the natural environmental background. – The 11kV transmission line must maintain a minimum clearance of 5 700 mm to accommodate giraffes. – BFDs (Bird Flight Diverters – e.g., coils, flappers, etc.) are to be installed along the most important portions of the transmission line to minimise/prevent avifauna collision/mortalities. – Conductors should be covered with LDPE (Low-Density Polyethylene) pipe to minimise risk to a variety of raptors on the 11kV powerline. – An electric fence should be installed around the substation to deter vandalism by baboons. Attenuation dam, river diversion wall/dam – Engineers from Knight Piesold may be consulted or brought in to provide further expertise on the Okawayo River diversion and the construction of the weir dam. D1941 road diversion – Civil engineers and transport engineers from Innovative Traffic Solutions (ITS) can be consulted to provide expert advise on the road diversion.
	Biodiversity	The on-site Environmental Officer shall: – Conduct a wildlife and endemic species search and rescue operations prior to the commencement of construction activities. – Ensure the land clearing permit is acquired from the Department of Forestry (DoF) prior to the commencement of land clearing activities. – Ensure that all equipment to be used for any earth moving activity (including and specifically those working on the river and road diversions) must be cleaned and free from soil, weed and seeds prior to being used on site. – Sign off all Method Statements prior to the commencement of construction work.

Domain 1 - Surface Infrastructure		
		The contractors and subcontractors must comply with the following conditions: – Minimise vegetation clearing by restricting activities to the designated road corridors and powerline servitudes. – No pets are allowed on site. – Riparian vegetation along the Okawayo tributary and Khan River is to be preserved to the greatest extent possible. – All animals have the right of way. – Hunting and poaching are strictly prohibited. – Existing roads and tracks are to be used. – Nighttime travelling is prohibited. – Incidents involving wildlife and staff, visitors and/or contractors to be immediately reported to the environmental department. – Burrows that are created without any further future purpose should be backfilled. – All incidents to be investigated and recorded as per the incident management procedure. – The collection of firewood is strictly prohibited. – Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible. – Grass, on the runway shoulders, should be maintained and kept short so as not to act as a habitat and/or attract various birds. – Holes excavated for the powerline poles must not be left open over-night as they pose a potential pitfall hazard to wildlife.
	Air quality	The conditions are to be complied with by the contractors and subcontractors: – The construction team shall be issued with dust masks. – Minimise dust generated on-site by having basic control measures in place such as regulating the speed of excavators, bulldozers, graders and other road construction machinery. – Speed limit of 40 km/h for the site is to be adhered to. – To control dust, water sprays shall be applied to frequently used unpaved road sections and during road construction activities. – Any construction vehicle found to be emitting excessive smoke, such as thick, black or pungent exhaust fumes or

Domain 1 - Surface Infrastructure		
		displaying signs of significant hydrocarbon spillage must be immediately stopped from operating until it is determined to be mechanically sound and free of defects. - Trucks carrying loads should be covered, where possible. - A complaint register must be kept. The following must be undertaken by the independent third-party (independent ECO) - Maintain the dust fallout monitoring program during the duration of construction activities. - Maintain the PM10/2.5 monitoring program throughout the construction phase. - Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Traffic	The contractors and subcontractors working in the domain shall ensure the following conditions are complied with: - Ensure that a noticeboard displaying the contact details of the Project Manager and Site Manager should be installed at the site entry point. These boards will serve as a point of reference for community members who may have inquiries or wish to submit complaints. - The Khan River or Okawayo River should not be used as a general access route. - Install clearly visible road signage at least 500 m before the mine site access road, on both sides to warn motorists of the presence of heavy vehicle traffic/ road construction work. - Install appropriate road signs in places to warn road users about the road works and detour roads to be used. - Drivers (licenced) are expected to adhere to all traffic rules. - Roads to be maintained regularly, bi-weekly where surfaces are very active and prone to corrugation. - Use banksmen or spotter to assist private vehicles in accessing properties or coordinating the flow of traffic at intersections (site entry points). - A complaint register must be kept.

Domain 1 - Surface Infrastructure		
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: – Only approved ablution facilities to be utilised. – If additional ablution facilities are required, the DWA is to be informed. – No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. – Ablution facilities to be cleaned and maintained on a regular basis. – Effluent water is to be contained and leakages are to be cleaned up within 24 hours of the incident occurring. – Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. – No intractable or toxic waste should be allowed into the septic tanks. – If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. – No wastewater may be discharged into a river. The third-party ECO shall: – Conduct regular effluent water quality sampling (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: – Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. – Efforts must be made to recycle waste where possible. – Bins and skips must have lids, that can seal and are scavenger/baboon-proof. – All contractor waste is required to be disposed of off-site, but not in the host communities. – No fires will be allowed on-site, unless in approved designated areas (incinerators). – Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. – Scrap metal is to be collected in dedicated bunded areas.

Domain 1 - Surface Infrastructure		
		- Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility. - A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. - The work areas are to be kept clean and maintained in a clean, orderly and presentable conditions always.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: - Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. - Pre-start checks to be conducted daily on equipment. - Ensure the best available machinery and equipment with low sound output is used. - Construction activities are to be conducted between dawn and dusk. - Employees to be issued with ear plugs. - Avoid unnecessary equipment always idling. - Equipment, vehicles and heavy mining equipment (HME) to be serviced and maintained regularly. - A complaint register must be kept. The third-party ECO must: - Maintain the noise monitoring program to assess the impacts of noise on receptors.
	Visual	Contractors and subcontractors must comply with the following conditions: - Machinery and equipment should only be kept on-site for the duration of the construction activities. - Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances.

Domain 1 - Surface Infrastructure		
	Water quality and Availability	The contractors and subcontractors must: – Ensure heavy delivery vehicles are kept in good mechanical condition to minimise noise associated with their operation and to prevent hydrocarbon spills. – Ensure refuelling of equipment and machinery should be done in controlled, bunded areas following standard refuelling procedures. – Fuel bowzers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume. – Report any soil, surface water or groundwater contamination as per incident reporting procedure. The third-party ECO must: – Maintain the groundwater quality monitoring program and reporting for the site throughout the construction phase.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: – Collection of soil or sand from the Khan or Okawayo River is strictly prohibited, except for the designated open pit areas and the section of the Okawayo River planned for redevelopment. – Only existing tracks will be utilised. – Topsoil (300 mm) to be removed should be stockpiled separately not exceeding a height of 2 m. – Overburden materials excavated should be stockpiled to a height not exceeding 20 m.
	Heritage	All contractors and subcontractors must: – Avoid disturbing heritage object or resources (when unearthed). – The chance find procedure must be followed (refer to Section 5.5.5).
Environmental pollution control measures (PCM)	Function and performance	Maintenance frequency
	Used daily throughout the	Weekly/monthly maintenance as per planned maintenance schedule.

Domain 1 - Surface Infrastructure					
	construction phase				
Environmental monitoring program	Environmental monitoring				
	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
	Site code	Name	Monitoring purpose	Frequency	Threshold
	Air quality - Depositional dust monitoring	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	Monthly	600 mg/m ² /day
	B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	Quarterly	PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	Groundwater levels	Baseline groundwater monitoring network	Required to monitoring aquifer groundwater levels	Monthly	NA
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Noise	Monitoring points as	To monitor noise	Biannual	45 dB daytime

Domain 1 - Surface Infrastructure					
		determined by the specialist	impacts on the nearest receptors		35 dB nighttime
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) - The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. - The Domain Manager must complete the weekly compliance checklist. - Report to the appointed ECO any incidents reported during the month involving flora, fauna or construction employees. - Any complaints received from the community (complaints should be recorded in the public grievance mechanism complaint register – see template in Appendix C).				
	Appointed ECO to report back to Domain Manager and Environmental Officer (monthly) - Advise on action items to be implemented to address complaints received from the community. - Report the level of compliance to the CEMP. - Provide monthly written reports on the environmental monitoring program. - Records regarding any biodiversity loss including bird collisions with powerlines and wildlife death should be documented.				
Environmental Inspection	Daily	Weekly	Monthly	Other	
	Ascertain dust suppression requirement	Inspect for water Leaks or breakages of pipes.	CEMP compliance audit.	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).	
Supporting documents	Land clearing permit, road diversion permits, and the domain sign off (Appendix D).				

Domain 2 - Explosive magazine

Domain 2 – Explosive magazine		
Domain Manager	Mine Manager	
Description	This domain comprises the explosive magazine, a yard and associated infrastructure within its operational area. The total footprint of the explosive magazine could be approximately 5.12 ha.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Accessory works permit B. Land clearing permit	A. Renewed every 5 years or when a material change occurs. B. Compliance to the permit conditions is required, with renewal required every three months (if required).
Potential issues or impacts	Groundwater – Soil, land and groundwater contamination from hydrocarbon spills from heavy equipment failures or spills, or incorrect servicing procedures. Surface water – Potential for sediments runoff and erosion. – The use of chemicals (e.g. fuels, oils and lubricants) can leak or wash into surface waters. Air quality The potential for land clearing activities and site leveling to generate dust that could impact neighbouring communities. Biodiversity – Land clearing activities causing habitat destruction and species displacement. – Death and injury to wildlife resulting from interaction with construction equipment and machinery. Social – Noise and dust nuisance to neighbours from construction activities. – Potential disruption of social interactions. – Social tension between different groups or individuals within the community and mine construction workers. Noise – Noise impacts on employees. – Community severance and disruption of social interactions.	

Domain 2 – Explosive magazine		
	Visual – Disruption of the visual landscape and diminished sense of place. – Visual disturbance due to the generation and disposal of construction waste. Heritage Potential to unearth and disturb heritage objects or resources.	
Targets	Community – Zero un-resolved community complaints relating to dust or noise. – This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Soil, surface and groundwater contamination – Protect land, soil and water resources by preventing contaminations. ○ This is to be achieved through the implementation of best hydrocarbon spills management practices and timely reporting of contamination incidents. Rehabilitation – Rehabilitate dis-used roads, laydown areas, burrows and tracks that are deemed uneconomical or viable for future use. ○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.	
	To minimise the effects the above-mentioned impacts may have on the environment and community, the contractors and their respective subcontractors through the Method Statements should ensure the following measures are implemented:	
Construction management measures	Technical requirements	Explosive magazine area and associated infrastructure – Ensure ongoing engagement with NAMPOL from the onset and through the operational phase. – Ensure that fencing around the construction site meets the required standards to effectively prevent unauthorized access.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: – Collection of soil or sand from the Khan or Okawayo River is strictly prohibited. – Only existing tracks will be utilised. – Topsoil (300 mm) to be removed should be stockpiled separately not exceeding a height of 2 m.

Domain 2 – Explosive magazine		
		Overburden materials excavated should be stockpiled to a height not exceeding 20 m.
	Biodiversity	The on-site Environmental Officer shall: - Conduct a wildlife and endemic species search and rescue operations prior to the commencement of construction activities. - Ensure the land clearing permit, authorising for the removal of protected tree species remains valid throughout the duration of the land clearing activities. - All equipment to be used for these construction activities must be cleaned and inspected for weed and seeds prior to being used on site. The contractors and subcontractors must comply with the following conditions: - Limit construction activities to the designated area planned for development. - No pets are allowed on site. - Hunting and poaching are strictly prohibited. - The collection of firewood is strictly prohibited. - Existing roads and tracks are to be used. - Nighttime travelling is prohibited. - All animals have the right of way. - Burrows that are created without any further future purpose should be backfilled. - Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. - Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. - Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible. - Briefings on snakes and snake bite first aid treatments shall be conducted. - Incidents involving wildlife and staff, visitors and/or contractors to be immediately reported to the environmental department.

Domain 2 – Explosive magazine

	Air quality	The conditions are to be complied with by the contractors and subcontractors: – The construction team shall be issued with dust masks. – Use water spray during construction activities to control dust and airborne particulate matter. – Construction vehicles and haul trucks to adhere to established speed limits for the site. – Ensure that excavators, front-end loaders and haul trucks are regularly inspected and serviced to ensure minimal exhaust emissions and maintain optimal performance. – Any construction vehicle found to be emitting excessive smoke, such as thick, black or pungent exhaust fumes or displaying signs of significant hydrocarbon spillage must be immediately stopped from operating until it is determined to be mechanically sound and free of defects. – To minimize windblown dust from stockpile areas, water sprays should be applied to keep the surface material adequately moist. – Trucks carrying loads should be covered, where possible. The independent third-party ECO must: – Maintain the dust fallout monitoring program throughout construction activities. – Maintain the PM10/2.5 monitoring program throughout the construction phase.
	Water quality and availability	The contractors and subcontractors must: – Ensure drainage systems to be in place to control sediments runoff during construction activities. – Ensure that refuelling of equipment and machinery is undertaken in controlled, bunded areas, following standard refuelling procedures. – Fuel bowzers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume. – Report any soil or groundwater contamination as per incident reporting procedure.

Domain 2 – Explosive magazine		
		The third-party ECO must: – Maintain the groundwater level monitoring program to assess impacts on neighbouring boreholes.
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: – Only approved ablution facilities to be utilised. – If additional ablution facilities are required, the DWA is to be informed. – No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. – Ablution facilities to be cleaned and maintained on a regular basis. – Effluent water is to be contained, and leakages are to be cleaned up within 24 hours of the incident occurring. – Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. – No intractable or toxic waste should be allowed into the septic tanks. – If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. – No wastewater may be discharged into a river. The third-party ECO shall: – Conduct regular effluent water quality samples to be taken by the Environmental department (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: – Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. – Bins and skips must have lids, that can seal and are scavenger/baboon-proof. – All contractor waste is required to be disposed of off-site, but not in the host communities. – No fires will be allowed on-site, unless in approved designated areas (incinerators).

Domain 2 – Explosive magazine		
		- Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. - Scrap metal is to be collected in dedicated bunded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility. - A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. - The construction area and surrounding are to be kept clean and maintained in a clean, orderly and presentable condition always.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: - Pre-start checks to be conducted daily on equipment. - Early notice/warning of construction works to neighbouring communities through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding communities. - Employees to be issued with ear plugs. - Restrict construction activities to the hours between dawn and dusk. - Ensure the best available machinery and equipment with low sound output is used. - Ensure equipment is made available for servicing to prevent equipment-associated impacts (noise etc.) - Avoid unnecessary equipment always idling. - A noise complaints register must be kept. The third-party ECO must: - Maintain the noise monitoring program to assess the impacts of noise on receptors.
	Visual	Contractors and subcontractors must comply with the following conditions: - Machinery and equipment should only be kept on-site for the duration of the construction activities. - Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to

Domain 2 – Explosive magazine					
		prevent the accumulation of waste, debris, and hazardous substances			
	Heritage	All contractors and subcontractors must: - Avoid disturbing heritage object or resources (when unearthed). - The chance find procedure must be followed (refer to Section 5.5.5).			
Environmental pollution control measures (PCM)	Function and performance			Maintenance frequency	
	Used daily to wet roads and stockpiles to reduce dust			Monthly maintenance as per planned maintenance schedule	
	Environmental monitoring				
	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
Environmental Monitoring program	Site Code	Name	Monitoring purpose	Frequency	Threshold
	Noise – ambient noise	Noise monitoring network as determined by the specialist	Impact of Project-related noise on sensitive receptors	Biannual	45 dB daytime 35 dB nighttime
	A. Depositional dust fallout monitoring B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	A. Monthly B. Quarterly	600 mg/m ² /day B. PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Groundwater levels	Baseline groundwater monitoring network	Required to monitor aquifer groundwater levels	Monthly	NA

Domain 2 – Explosive magazine					
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) – The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. – The Domain Manager must complete the weekly compliance checklist. – Any complaints received from the community. – Any incidents reported during the month involving flora, fauna or construction employees. – The volumes of water used during the construction activities. Appointed ECO to report to Domain Manager and Environmental Officer (monthly) – Report on the level of compliance with the requirements of the CEMP. – Provide written feedback on the environmental monitoring program. – Advise on action items to be implemented to address complaints received from the community.				
Environmental inspection/s	Daily	Weekly	Monthly		Other
	Dust suppression requirement	Hydrocarbon spills and waste management	CEMP compliance audit		Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).

Domain 2 – Explosive magazine

**Supporting
documents**

- Domain sign-off Appendix D, land clearing permit and Waste Management Plan.

Domain 3: Open pit mining area

Domain 3 - Open pit and mining areas		
Domain manager	Mine Manager	
Description	This domain encompasses the four (4) open pits on ML 238 -Twin Hills, Bulge, Clouds, and Western pit. It covers an area of 240 hectares and includes the haul road.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	C. Environmental clearance certificate D. Mining Licence 238 E. Accessory works permit F. Land clearing permit	C. Compliance with the CEMP. D. Integrate efforts for progressive rehabilitation from the onset. E. Renewed every 5 years or when a material change occurs. F. Compliance to the permit conditions is required, with renewal occurring every three months (if required).
Potential issues or impacts	Groundwater – Soil and groundwater contamination from hydrocarbon spills from construction containers. - The potential risk of intercepting the groundwater table. Surface water – Potential for sediments runoff and erosion. – The use of chemicals (e.g. fuels, oils and lubricants) can leak or wash into surface waters. – Altered natural flow of surface water (surface water inflows into the open pits) Air quality – The potential for land clearing activities, site leveling, earthwork activities, loading and tipping of materials to generate dust that could impact neighbouring communities. Noise – Noise impacts on employees. – Community severance and disruption of social interactions. Biodiversity – Excessive land clearing leading to habitat destruction and species displacement.	

Domain 3 - Open pit and mining areas	
	– Death and injury to wildlife from heavy equipment using haul roads or falling into the pit. – Burrows acting as pitfall traps. Potential risk of wildlife colliding with Project vehicles. Social – Noise and dust nuisance to neighbours from construction activities. – Potential disruption of social interactions. – Social tension between different groups or individuals within the community and mine construction workers. Visual – Disruption to the visual landscape and diminished sense of place. – Visual disturbance due to the generation and disposal of construction waste. Heritage – Potential to unearth and disturb heritage objects or resources.
Targets and reporting	Community – Zero un-resolved community complaints relating to dust or noise. – This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Soil, surface and groundwater – Protect water resources by minimising water losses and preventing contaminations. – This is to be achieved through timely reporting of contamination incidents and addressing such incidents. Heritage To carefully manage the relocation and preservation of heritage artefacts (when unearthed within the domain) ○ This is to be achieved by following the chance find procedure. Rehabilitation – Rehabilitate dis-used roads, burrows and tracks that are deemed uneconomical or viable for future use. ○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.
To minimise the effects the above-mentioned impacts may have on the environment and community, the contractors and their respective subcontractors through the Method Statements ensure that the following measures are implemented:	

Domain 3 - Open pit and mining areas		
Construction management measures	Geotechnical support and expert advice	Open pits - Construction of the open pits will be inspected regularly by geotechnical engineers. - Pore pressures will be monitored on an ongoing basis utilising a series of piezometers located around the pit. - The need to install an active dewatering system to depressurize the pit walls shall be considered as the pit deepens.
	Soils management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: - Only designated surface roads, haul roads or paved areas will be utilised. - The collection of soil or sand from any part of the Khan or Okawayo River, other than the designated open pit areas, is strictly prohibited. - Soils collected from the designated open pit areas could be reused in the construction processes. - Topsoil (300 mm) to be removed should be stockpiled separately not exceeding a height of 2 m. - Overburden materials excavated should be stockpiled to a height not exceeding 20 m.
	Biodiversity	The on-site Environmental Officer shall: - Conduct a wildlife and endemic species search and rescue operation prior to the commencement of construction activities. - Ensure the land clearing permit is acquired from the Department of Forestry (DoF) prior to the commencement of land clearing activities. - All equipment to be used for these construction activities must be cleaned and inspected for weed and seeds prior to being used on site. - Sign off all Method Statements prior to the commencement of construction work. The contractors and subcontractors must comply with the following conditions: - Limit construction activities to the designated open pit areas and haul roads corridors. - No pets are allowed on site. - Nighttime travelling is prohibited.

Domain 3 - Open pit and mining areas		
		– Incidents involving wildlife and staff, visitors and/or contractors to be immediately reported to the environmental department. – Hunting and poaching are strictly prohibited. – The collection of firewood is strictly prohibited. – Riparian vegetation along the Okawayo tributary and Khan River is to be preserved to the greatest extent possible. – Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. – Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. – Briefings on snakes and snake bite first aid treatments shall be conducted. – Any animal fatalities must be reported immediately reported to the environmental department and the incident must be recorded, as per the incident management procedure.
	Air quality	The following conditions are to be complied with by the contractors and subcontractors: – Use water spray during construction activities to control dust and airborne particulate matter. – To minimize windblown dust from stockpile areas, water sprays should be applied to keep the surface material adequately moist. – Construction vehicles and haul trucks to adhere to established speed limits for the site. – Ensure that excavators, front-end loaders and haul trucks are regularly inspected and serviced to ensure minimal exhaust emissions and maintain optimal performance. – Any construction vehicle found to be emitting excessive smoke, such as thick, black or pungent exhaust fumes or displaying signs of significant hydrocarbon spillage must be immediately stopped from operating until it is determined to be mechanically sound and free of defects. – A complaint register must be kept. The following must be undertaken by the independent third-party company (independent ECO) – Maintain the fallout dust monitoring program.

Domain 3 - Open pit and mining areas		
		– Maintain the PM10/2.5 monitoring program throughout construction phase.
	Water quality and availability	The contractors and subcontractors must ensure: – Sumps are in place to collect stormwater that collects in the pits. – Ensure all water-bearing features are mapped, surveyed and included into the mine plan plans and programmes. – Ensure monitoring systems are in place to detect potential inflows. – Refuelling of drills and equipment working at the pit wall or mine faces should be done in a controlled, bunded area following standard open pit refuelling procedures. – Fuel bowzers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume. – Ensure equipment is made available for servicing to prevent equipment-associated impacts (spills). The third-party ECO must ensure that: – The groundwater quality monitoring program is maintained throughout the construction phase. – Volumes of water abstracted or dewatered are recorded and reported to the Department of Water Affairs (DWA), in line with permit conditions.

Domain 3 - Open pit and mining areas

	Domestic effluent management	- Sewage facilities (mining ponds) to be permitted with DWA. - Only approved ablution facilities to be utilised. - If additional ablution facilities are required, the DWA is to be informed. - Ablution facilities must be easily accessible for employees, on site security, contractors and subcontractors. - No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. - Ablution facilities to be cleaned and maintained on a regular basis. - Effluent water is to be contained and leakages are to be cleaned up within 24 hours of the incident occurring. - Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib - No intractable or toxic waste should be allowed into the septic tanks. - If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. - No wastewater may be discharged into a river. The third-party ECO shall: - Conduct regular effluent water quality samples to be taken by the Environmental department (on a quarterly schedule as per the monitoring program).
--	------------------------------	--

Domain 3 - Open pit and mining areas		
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: – Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. – Efforts must be made to recycle waste where possible. – Bins and skips must have lids, that can seal and are scavenger/baboon-proof. – All contractor waste is required to be disposed of off-site, but not in the host communities. – No fires will be allowed on-site, unless in approved designated areas (incinerators). – Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. – Scrap metal is to be collected in dedicated banded areas. – Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility. – A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. – The pit areas and surrounding areas to be kept clean and maintained in a clean, orderly and presentable condition always.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: – Pre-start checks to be conducted daily on equipment. – Ensure the best available machinery and equipment with low sound output is used. – Early notice/warning of construction works to neighbouring communities through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding communities. – Restrict construction activities to the hours between dawn and dusk. – All diesel-powered equipment and plant vehicles should be kept at a high level of maintenance. This should particularly include the regular inspection and, if necessary, replacement of intake and exhaust silencers. Any change in the noise

Domain 3 - Open pit and mining areas					
		emission characteristics of equipment should serve as a trigger for withdrawing it for maintenance. – Keep all roads well maintained and avoid steep inclines or declines to reduce acceleration/brake noise. – Ensure equipment is made available for servicing to prevent equipment-associated impacts (noise etc.) – Avoid unnecessary equipment always idling. – A noise complaints register must be kept.			
	Visual	Contractors and subcontractors must comply with the following conditions: – Machinery and equipment should only be kept on-site for the duration of the construction activities. – Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances			
	Heritage	All contractors and subcontractors must: – Avoid disturbing any heritage objects or resources (when discovered or unearthed). – The chance find procedure must be followed (refer to Section 5.5.5).			
Environment al pollution control measures (PCM)	Function and performance			Maintenance frequency	
	Used daily to wet roads and stockpiles to reduce dust.			Monthly maintenance as per planned maintenance schedule	
	Environmental monitoring				
	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
Environment al Monitoring	Site Code	Name	Monitoring purpose	Frequency	Threshold
	Noise – ambient noise	Noise monitoring network as	Impact of Project-related noise on	Biannual	45 dB daytime

Domain 3 - Open pit and mining areas					
		determined by the specialist	sensitive receptors		35 dB nighttime
	A. Depositional dust fallout monitoring B. PM ₁₀ and PM _{2.5})	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	A. Monthly B. Quarterly	A. 600 mg/m ² /day B. PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Groundwater levels	Baseline groundwater monitoring network	Required to monitor aquifer groundwater levels	Monthly	NA
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site.	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) - The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. - The Domain Manager must complete the weekly compliance checklist. - Any complaints received from the community. - Any incidents reported during the month involving flora, fauna or construction employees. - Any complaints received from the community (complaints should be recorded in the public grievance mechanism complaint register – see template in Appendix C).				

Domain 3 - Open pit and mining areas				
	- The volumes of water used or dewatered during the construction activities. Appointed ECO to report to Domain Manager and Environmental Officer (monthly) - Report on the level of compliance with the requirements of the CEMP. - Provide written feedback on environmental monitoring program. - Advise on action items to be implemented to address complaints received from the community.			
Environment al inspection/s	Daily	Weekly	Monthly	Other
	Dust suppression requirement	Hydrocarbon spills and management of construction waste	CEMP compliance audit.	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).
Supporting documents	Domain sign off (Appendix D), land clearing permit, water abstraction licences and Waste Management Plan.			

Domain 4 – Waste rock dump (WRD)

Domain 4 – Waste rock dump		
Domain manager	Mine Manager	
Description	This domain includes a crusher used for operations, the main WRD consisting of three sections known as WRD 1, 2 and 3, and the two low-and one medium - grade mineral stockpiles. ROM (run of mine) ore will either be transported to the stockpiles or directly to the ROM pad. Activities associated with the domain include vegetation clearing for footprint expansion, tipping, hauling and loading, landform sloping and bulldozing/levelling, mobile crushing of waste rock to produce crushed material of various sizes for site use and haul road maintenance and construction.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months). B. Accessory work permit	A. Compliance to the permit conditions and the permit shall be renewed every three months. B. Renewed every 5 years or when material change occurs.
Potential issues or impacts	Air Quality – The potential for land clearing activities, site leveling, materials handling and loading to generate dust that could impact neighbouring communities. Groundwater – Soil, land and groundwater contamination from hydrocarbon spills from construction containers, heavy equipment and incorrect servicing procedures. – Earthwork activities may potentially intersect the underlying groundwater table. Surface water – Potential for sediments runoff and erosion. – The use of chemicals (e.g. fuels, oils and lubricants) can leak or wash into surface waters. – Potential alteration of natural flow of surface water in drainage areas. Social – Noise and dust nuisance to neighbours from construction activities. – Potential disruption of social interactions. – Social tension between different groups or individuals within the community and mine construction workers. Biodiversity	

Domain 4 – Waste rock dump		
	– Loss of vegetation due to excessive land clearing. – Loss of habitat and wildlife displacement. – Potential risk of wildlife colliding with Project vehicles. Visual – Disruption of the visual landscape and diminished sense of place. – Visual disturbance due to the generation and disposal of construction waste. Noise – Noise impacts on employees. – Community severance and disruption of social interactions. Heritage – Potential to unearth and disturb heritage objects or resources.	
Targets	Community: – Zero un-resolved community complaints relating to dust or noise. ○ This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Surface/groundwater contamination – Protect soils and preserve water resources by implementing measures to prevent contaminations. ○ This will be achieved through the timely management and reporting of contamination incidents. Rehabilitation – Rehabilitate dis-used roads, burrows and tracks that are deemed uneconomical or viable for future use. ○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.	
To minimise the effects the above-mentioned impacts may have on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:		
Construction management measures	Technical requirement(s)	WRD footprint – Base layer of calcrete should be constructed to ensure a thick and stable foundation.
	Air quality	The conditions are to be complied with by the contractors and subcontractors: – Implement a phased land clearing approach to minimise the exposure of large areas, thereby reducing the potential for dust generation. – The construction team shall be issued with dust masks. – Minimise dust generated on-site by having basic control measures in place such as regulating the speed of

Domain 4 – Waste rock dump		
		excavators, bulldozers, graders and other road construction machinery. – Trucks carrying loads should be covered, where possible. – Adherence to established speed limits (40 km/h). – Ensure a proactive approach to weather monitoring and when high winds are predicted and ensure that operational water spray trucks are deployed when such activities are undertaken. – Dust suppression on surface haul roads (to the WRDs and stockpiles). – Roads to be maintained regularly, weekly where surfaces are very active and prone to corrugation. – A complaint register must be in place and complaints should always be recorded. The following must be undertaken by the independent third-party (independent ECO) – Maintain the dust fallout monitoring program to monitor the effects and extent of dust dispersion during construction activities. – Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Biodiversity	The on-site Environmental Officer shall: – Ensure the land clearing permit, which authorises for the removal of vegetation and protected trees remains valid throughout the duration of the land clearing activities. – Conduct a wildlife and endemic species search and rescue operation prior to the commencement of construction activities. – All equipment intended for construction activities must be thoroughly cleaned and inspected for weeds and seeds before being used on site. The contractors and subcontractors must comply with the following conditions: – Limit construction activities to the designated WRD footprint.

Domain 4 – Waste rock dump		
		- All animals have the right of way. - No pets are allowed on site. - Nighttime travelling is prohibited. - Existing roads and tracks are to be used. - Hunting and poaching are strictly prohibited. - The collection of firewood is strictly prohibited. - Burrows that are created without any further future purpose should be backfilled. - Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. - Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. - Briefings on snakes and snake bite first aid treatments shall be conducted. - All incidents to be investigated and recorded as per the incident management procedure.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: - Only existing tracks will be utilised. - Topsoil (300 mm) excavated through site levelling should be stockpiled separately and should not exceed a height of 2 m. - Any other overburden materials should be stockpiled to a height not exceeding 20 m. - Erosion/sediments run off should be controlled especially on stockpiles intended for longer periods.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: - Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. - Pre-start checks to be conducted daily on equipment. - All diesel-powered equipment and machinery should be kept at a high level of maintenance. - Ensure the best available machinery and equipment with low sound output is used.

Domain 4 – Waste rock dump		
		- Construction activities are to be conducted between dawn and dusk. - Employees to be issued with ear plugs. - A noise complaints register must be kept, and noise complaints should be addressed in line with the complaint management procedures.
	Visual	Contractors and subcontractors must comply with the following conditions: - Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances. - Machinery and equipment should only be kept on-site for the duration of the construction activities. - Keep topsoil and overburden stockpiles within the recommended height limits.
	Water quality and availability	The contractors and subcontractors must: - Ensure refuelling of equipment and machinery should be done in controlled, bunded areas following standard refuelling procedures. - Fuel bowzers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume. - Report any soil or groundwater contamination as per incident reporting procedure. The third-party ECO must: - Maintain the groundwater quality monitoring program for the site throughout the construction phase.
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: - Only approved ablution facilities to be utilised. - If additional ablution facilities are required, the DWA is to be informed. - No employee or contractor on site may relieve himself or herself in the surrounding environment or work area.

Domain 4 – Waste rock dump		
		- Ablution facilities to be cleaned and maintained on a regular basis. - Effluent water is to be contained, and leakages are to be cleaned up within 24 hours of the incident occurring. - Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. - No intractable or toxic waste should be allowed into the septic tanks. - Septic tanks or any waste systems shall be located no closer than 500 m from a borehole. - If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. - No wastewater may be discharged into a river. The third-party ECO shall: - Conduct regular effluent water quality samples to be taken by the Environmental department (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: - Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. - Bins and skips must have lids, that can seal and are scavenger/baboon-proof. - All contractor waste is required to be disposed of off-site, but not in the host communities. - No fires will be allowed on-site, unless in approved designated areas (incinerators). - Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. - Scrap metal is to be collected in dedicated bunded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site

Domain 4 – Waste rock dump					
		and disposed of at a suitable registered hazardous waste facility. – A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. – The construction area and surrounding are to be kept clean and maintained in a clean, orderly and presentable condition always.			
	Heritage	All contractors and subcontractors must: – Avoid disturbing heritage object or resources (when unearthed). – The chance find procedure must be followed (refer to Section 5.5.5).			
Environmental pollution control measures (PCM)	Function and performance			Maintenance frequency	
	Used daily to wet roads and stockpiles to reduce dust			Monthly maintenance as per planned maintenance schedule	
	Environmental monitoring				
	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
Environmental Monitoring program	Site code	Name	Monitoring purpose	Frequency	Threshold
	Noise – ambient noise	Noise monitoring network as determined by the specialist	Impact of Project-related noise on sensitive receptors	Biannual	45 dB daytime 35 dB nighttime
	A. Depositional dust fall out monitoring B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	A. Monthly B. Quarterly	600 mg/m ² /day B. PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³

Domain 4 – Waste rock dump					
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	Groundwater levels	Baseline groundwater monitoring network	Required to monitor aquifer groundwater levels	Monthly	NA
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) – The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. – The Domain Manager must complete the weekly compliance checklist. – Any incidents reported during the month involving flora, fauna or construction employees. – The volumes of water used during the construction activities (including any intersection events of the underlying groundwater). – Any complaints received from the community. Appointed ECO to report to the Domain Manager and Environmental Officer (monthly) – Report on the level of compliance with the requirements of the CEMP. – Provide written feedback on the environmental monitoring program.				

Domain 4 – Waste rock dump				
	– Advise on action items to be implemented to address complaints received from the community. – Notify the Domain Manager if monitoring identifies high dust fallout values exceeding the threshold and the corrective actions to be implemented.			
Environment al inspection/s	Daily	Weekly	Monthly	Other
	Dust suppression requirement	Hydrocarbon spills, waste management	CEMP compliance audit	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).
Supporting documents	Land clearing permit, Waste Management Plan, Domain sign off (Appendix D).			

Domain 5 – ROM pad and crusher

Domain 5 – ROM pad and crusher		
Domain manager	Technical Services Manager	
Description	This domain comprises a single stage gyratory crusher and pebble crusher, the coarse ore stockpile and all associated infrastructure of the ROM pad and crusher. Activities around this domain will include sorting of ore, crushing and stockpiling. The total footprint of the domain is expected to be approximately 14.4 ha.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months). B. Accessory work permit C. Water abstraction licence	A. Compliance to the permit conditions and the permit shall be renewed every three months. B. Renewed every 5 years or when material change occurs. C. Adherence to abstraction volumes and reporting to DWA as per permit conditions.
Potential issues or impacts	Air Quality – Dust generated from land clearing, use of excavators, bulldozer's activities. Groundwater – Potential hydrocarbon spills and contamination of groundwater from heavy equipment and incorrect servicing procedures. – Earthwork activities may potentially intersect the underlying groundwater table. Biodiversity – Loss of vegetation due to land clearing activities. – Loss of habitat and wildlife displacement. Visual – Disruption of the visual landscape and diminished sense of place. – Visual disturbance due to the generation and disposal of construction waste. Social – Noise and dust nuisance to neighbours from construction activities. – Potential disruption of social interactions. – Social tension between different groups or individuals within the community and mine construction workers. Noise – Noise impacts on employees. – Community severance and disruption of social interactions.	

Domain 5 – ROM pad and crusher		
	Heritage - Potential to unearth and disturb heritage objects or resources.	
Targets	Community - Zero un-resolved community complaints relating to dust or noise. - o This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms.	
	Soil, surface/groundwater contamination - Protect soils and preserve water resources by implementing measures to prevent contaminations. - o This will be achieved through the timely management and reporting of contamination incidents.	
	Rehabilitation - Rehabilitate dis-used roads, burrows and tracks that are deemed uneconomical or viable for future use. - o This shall be achieved through third party monitoring, regular compliance auditing and reporting.	
	To minimise the effects the above-mentioned impacts may have on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:	
Construction management measures	Air quality	The conditions are to be complied with by the contractors and subcontractors: - Trucks carrying loads should be covered, where possible. - Ensure a proactive approach to weather monitoring and when high winds are predicted and ensure that operational water spray trucks are deployed when such activities are undertaken. - Dust masks to be issued to the construction workforce. - Speed limit of 40 km/h for the site is to be adhered to. - Any construction vehicle found to be emitting excessive smoke, such as thick, black or pungent exhaust fumes or displaying signs of significant hydrocarbon spillage must be immediately stopped from operating until it is determined to be mechanically sound and free of defects. - Roads to be maintained regularly, weekly where these surfaces are very active and prone to corrugation. - Trucks carrying loads should be covered, where possible.

Domain 5 – ROM pad and crusher		
		– A complaint register must be kept. The following must be undertaken by the independent third-party (independent ECO) – Maintain the dust fallout monitoring program to monitor the effects and extent of dust dispersion during construction activities. – Maintain the PM10/2.5 monitoring program throughout the construction phase. – Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Biodiversity	The on-site Environmental Officer shall: – Ensure the land clearing permit, which authorises for the removal of vegetation and protected trees remains valid throughout the duration of the land clearing activities. – Conduct a wildlife and endemic species search and rescue operation prior to the commencement of construction activities. – All equipment intended for construction activities must be thoroughly cleaned and inspected for weeds and seeds before being used on site. The contractors and subcontractors must comply with the following conditions: – Limit construction activities to the designated ROM pad and crusher footprint. – No pets are allowed on site. – Existing roads and tracks are to be used. – Nighttime travelling is prohibited. – Hunting and poaching are strictly prohibited. – The collection of firewood is strictly prohibited. – Burrows that are created without any further future purpose should be backfilled. – Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible. – Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed.

Domain 5 – ROM pad and crusher		
		– Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. – Briefings on snakes and snake bite first aid treatments shall be conducted. – Any animal fatalities must be reported immediately reported to the environmental department and the incident must be recorded, as per the incident management procedure.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: – Collection of soil or sand from the Khan or Okawayo River is strictly prohibited. – Only existing tracks will be utilised. – Topsoil (300 mm) excavated through site levelling should be stockpiled separately and should not exceed a height of 2 m. – Any other overburden materials should be stockpiled to a height not exceeding 20 m.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: – Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. – Pre-start checks to be conducted daily on vehicles and equipment. – Employees to be issued with ear plugs. – All diesel-powered equipment and machinery should be kept at a high level of maintenance. Equipment, vehicles and heavy mining equipment (HME) to be serviced and maintained regularly. – Construction activities are to be conducted between dawn and dusk. – Avoid unnecessary equipment always idling. – A noise complaints register must be kept, and noise complaints should be addressed in line with the complaint management procedures.

Domain 5 – ROM pad and crusher		
		The third-party ECO must: – Maintain the noise monitoring program to assess the impacts of noise on receptors.
	Visual	Contractors and subcontractors must comply with the following conditions: – Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances. – Machinery and equipment should only be kept on-site for the duration of the construction activities.
	Water quality and availability	The contractors and subcontractors must: – To avoid stagnant water, drainage systems to be in place to control sediments runoff during construction activities. – Implement appropriate water collection measures to capture and reuse water during rainfall events. In the event that construction activities intersect the underlying groundwater table, collected water should be collected and managed for reuse. – Ensure heavy delivery vehicles are kept in good mechanical condition to minimise noise associated with their operation and to prevent hydrocarbon spills. – Ensure refuelling of equipment and machinery should be done in controlled, bunded areas following standard refuelling procedures. – Fuel bowzers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume. – Report any soil or groundwater contamination as per incident reporting procedure. The third-party ECO must: – Maintain the groundwater level monitoring program to assess abstraction impacts on neighbouring boreholes.

Domain 5 – ROM pad and crusher		
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: – Only approved ablution facilities to be utilised. – If additional ablution facilities are required, the DWA is to be informed. – No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. – Ablution facilities to be cleaned and maintained on a regular basis. – Effluent water is to be contained, and leakages are to be cleaned up within 24 hours of the incident occurring. – Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. – No intractable or toxic waste should be allowed into the septic tanks. – If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. – No wastewater may be discharged into a river. The third-party ECO shall: – Conduct regular effluent water quality samples to be taken by the Environmental department (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: – Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. – Bins and skips must have lids, that can seal and are scavenger/baboon-proof. – All contractor waste is required to be disposed of off-site, but not in the host communities. – No fires will be allowed on-site, unless in approved designated areas (incinerators). – Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility.

Domain 5 – ROM pad and crusher					
		- Scrap metal is to be collected in dedicated bunded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility. - A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. - The construction area and surrounding are to be kept clean and maintained in a clean, orderly and presentable condition always.			
	Heritage	All contractors and subcontractors must: - Avoid disturbing heritage object or resources (when unearthed). - The chance find procedure must be followed (refer to Section 5.5.5).			
Environment al pollution control measures (PCM)	Function and performance			Maintenance frequency	
	Used daily to wet roads and stockpiles to reduce dust.			Monthly maintenance as per planned maintenance schedule.	
	Used daily to manage the storage, handling of hydrocarbons and response to spills.				
	Environmental monitoring				
	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
Environment al monitoring program	Site code	Name	Monitoring purpose	Frequency	Threshold
	Noise – ambient noise	Noise monitoring network as determined by the specialist	Impact of Project-related noise on sensitive receptors	Biannual	45 dB daytime 35 dB nighttime

Domain 5 – ROM pad and crusher					
	A. Depositional dust fallout monitoring B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	A. Monthly B. Quarterly	A. 600 mg/m ² /day B. PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Groundwater levels	Baseline groundwater monitoring network	Required to monitor aquifer groundwater levels	Monthly	NA
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) - The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. - The Domain Manager must complete the weekly compliance checklist. - Report any community complaints received from the community. - Any incidents reported during the month involving flora, fauna or construction employees.				

Domain 5 – ROM pad and crusher				
	- Any environmental incident (including the contaminations, contravention of the CEMP etc) Appointed ECO to report to the Domain Manager and Environmental Officer (monthly) - Report on the level of compliance with the requirements of the CEMP. - Provide monthly written feedback on environmental monitoring program. - Advise on action items to be implemented to address complaints received from the community. - Notify the Domain Manager if monitoring identifies high dust fallout values exceeding the threshold and the corrective actions to be implemented.			
Environment al inspection/s	Daily	Weekly	Monthly	Other
	Dust suppression requirement	Hydrocarbon spills and waste management	CEMP compliance audit	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).
Supporting documents	Land clearing permit, Water abstraction licence, Waste Management Plan, Domain sign off (Appendix D).			

Domain 6 – Processing plant and tailings pipeline

Domain 6 – Process plant		
Domain manager	Process Manager	
Description	This domain comprises the metallurgical processing plant, including a two-stage milling area, classification and gravity circuit; intensive cyanidation of the gravity concentrate area; cyanide leaching of the mill cyclone overflow, carbon adsorption and regeneration; and an elution, electro-winning and smelting area. In addition, the domain includes a conveyor system, a diesel tank (31 000 litres), a laboratory, the tailings pipeline and bund, the reagent storage and mixing area, processing water pond, the stockpiles and all infrastructure within the process plant fenced area. The total footprint of the processing plant and its associated components is estimated to cover approximately 33 hectares.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Water abstraction licence B. Accessory work permit C. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months). D. Consumer installation certificate	A. Compliance with abstraction volumes as stipulated in the approved licence. B. Renewed every 5 years or when material change occurs. C. Compliance to the permit conditions and the permit shall be renewed every three months. D. permit for the construction of the bulk fuel storage facility.
Potential issues or impacts	Groundwater – Potential hydrocarbon spills and contamination of groundwater from heavy equipment and incorrect servicing procedures. – Earthwork activities may potentially intersect the underlying groundwater table. Air quality – Dust generated from land clearing, use of excavators, bulldozer's activities.	

Domain 6 – Process plant	
	Biodiversity – Loss of vegetation due to land clearing activities. – Loss of habitats and wildlife displacement. Noise – Noise impacts on employees. – Noise nuisance to neighbours from construction activities. Traffic – Delivery heavy load vehicles: alteration of traffic flow, particularly at the C33 and D1941 intersection. – Degradation of road surfaces caused by constant use and the impact of heavy vehicles. Visual – The use of cranes and masts during the construction phase may result in visual nuisance as their substantial size and height can significantly alter the landscape. – Loss of sense of place due to the generation of construction waste. Heritage – Potential to unearth and disturb heritage objects.
Targets	Community – Zero un-resolved community complaints relating to dust or noise. ○ This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Soil, surface/groundwater contamination – Protect soils and preserve water resources by implementing measures to prevent contaminations. Roads/aerial – Enhance the efficiency and safety of road operations during construction activities. ○ This shall be achieved through appropriate road signs, clear signage proper lane marking and use of warning systems that communicate potential hazards. Rehabilitation – Rehabilitate dis-used roads, burrows and tracks that are deemed uneconomical or viable for future use. ○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.
To minimise the effects the above-mentioned impacts may have on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:	

Domain 6 – Process plant		
Construction management measures	Technical requirements	Process plant – Ensure proper compaction of the processing plant, laboratory foundation in accordance with the Method Statements. – Ensure installation of security fence, gate and lighting. Bulk fuel storage tank – The bulk fuel storage facility shall be constructed in accordance with the specifications approved under the bulk fuel certificate.
	Air quality	The conditions are to be complied with by the contractors and subcontractors: – Ensure a proactive approach to weather monitoring and when high winds are predicted and ensure that operational water spray trucks are deployed when such activities are undertaken. – Dust masks to be issued to the construction workforce. – Dust suppression on surface haul roads and water spray across all work areas in the domain. – Roads to be maintained regularly, weekly where these surfaces are very active and prone to corrugation. – Adherence to established speed limits (40 km/h). – Trucks carrying excavated loads should be covered, where possible. – Any construction vehicle found to be emitting excessive smoke, such as thick, black or pungent exhaust fumes or displaying signs of significant hydrocarbon spillage must be immediately stopped from operating until it is determined to be mechanically sound and free of defects. – A complaint register must be kept.

Domain 6 – Process plant		
		The following must be undertaken by the independent third-party (independent ECO) – Maintain the dust fallout monitoring program to monitor the effects and extent of dust dispersion during construction activities. – Maintain the PM10/2.5 monitoring program throughout the construction phase. – Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Biodiversity	The on-site Environmental Officer shall: – Ensure the land clearing permit, which authorises for the removal of vegetation and protected trees remains valid throughout the duration of the land clearing activities. – Conduct a wildlife and endemic species search and rescue operation prior to the commencement of construction activities. – All equipment intended for construction activities must be thoroughly cleaned and inspected for weeds and seeds before being used on site. The contractors and subcontractors must comply with the following conditions: – Tools and equipment are stored appropriately to prevent trip, slip and fall hazards and birds nesting. – Existing tracks should be utilised, and new tracks should only be developed in areas where no tracks exist. – Burrows that are created without any further future purpose should be backfilled. – Nighttime travelling is prohibited. – Limit construction activities to the designated processing plant footprint. – No pets are allowed on site. – Hunting and poaching are strictly prohibited. – The collection of firewood is strictly prohibited.

Domain 6 – Process plant		
		– Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible. – Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. – Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. – Briefings on snakes and snake bite first aid treatments shall be conducted. – All incidents to be investigated and recorded as per the incident management procedure.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: – Only existing tracks will be utilised. – Collection of soil or sand from the Khan or Okawayo River is strictly prohibited. – Topsoil (300 mm) excavated through site levelling should be stockpiled separately and should not exceed a height of 2 m. – Any other overburden materials should be stockpiled to a height not exceeding 20 m.
	Water quality and availability	The contractors and subcontractors must: – Ensure heavy delivery vehicles are kept in good mechanical condition to minimise noise associated with their operation and to prevent hydrocarbon spills. – Ensure refuelling of equipment and machinery should be done in controlled, bunded areas following standard refuelling procedures. – Fuel bowsers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume. – Staff involved in the transport, handling, and storage of hazardous chemicals must be

Domain 6 – Process plant		
		competent and adequately trained in accident response procedures. – Report any soil or groundwater contamination as per incident reporting procedure. – To avoid stagnant water, drainage systems are to be in place to control sediments runoff during construction activities. – Re-use all possible water and continue to investigate and implement all possible areas of water saving and water use where possible. The third-party ECO must: – Maintain the groundwater monitoring program for the site throughout the construction phase.
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: – Only approved ablution facilities to be utilised. – If additional ablution facilities are required, the DWA is to be informed. – Ablution facilities must be easily accessible for employees, on site security, contractors and subcontractors. – No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. – Ablution facilities to be cleaned and maintained on a regular basis. – Effluent water is to be contained, and leakages are to be cleaned up within 24 hours of the incident occurring. – Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. – No intractable or toxic waste should be allowed into the septic tanks. – If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable

Domain 6 – Process plant

		material or as the site engineer directs or permits. - No chemicals, fat-grease-oil or other hydrocarbons shall be disposed of in any way that may result in the pollution of any watercourse. The third-party ECO shall: - Conduct regular effluent water quality sampling (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: - Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. - Efforts must be made to recycle waste where possible. - Bins and skips must have lids, that can seal and are scavenger/baboon-proof. - All contractor waste is required to be disposed of off-site, but not in the host communities. - No fires will be allowed on-site, unless in approved designated areas (incinerators). - Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. - Scrap metal is to be collected in dedicated bunded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility. - A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. - The work areas are to be kept clean and maintained in a clean, orderly and presentable conditions always.

Domain 6 – Process plant		
	Noise	The following conditions are to be complied with by the contractors and subcontractors: – Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. – Pre-start checks to be conducted daily on equipment. – Construction activities are to be conducted between dawn and dusk. – All diesel-powered equipment and machinery should be kept at a high level of maintenance. – Avoid unnecessary equipment always idling. – Employees to be issued with appropriate PPE (i.e. ear plugs) during construction activities. – Equipment, vehicles and heavy mining equipment (HME) to be serviced and maintained regularly. – A noise complaints register must be kept, and noise complaints should be addressed in line with the complaint management procedures. The third-party ECO must: – Maintain the noise monitoring program to assess the impacts of noise on receptors.
	Visual	Contractors and subcontractors must comply with the following conditions: – Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances. – Masts, cranes and other tall construction equipment should only be retained on site for the duration of construction activities. – Keep topsoil and overburden stockpiles within the recommended height limits.

Domain 6 – Process plant		
	Traffic	The contractors and subcontractors working in the domain shall ensure the following conditions are complied with: – The Khan River or Okawayo River must not be used as a general access route. – Construction vehicles and truck delivering equipment to adhere to the site speed limits established for the site (40 km/h). – During heavy load vehicle deliveries, banksmen or spotters will be used to assist private vehicles in accessing properties and to coordinate the flow of traffic at intersections, including site entry points. – Drivers (licenced) are expected to adhere to all traffic rules established for the site. – A complaint register must be kept.
	Heritage	All contractors and subcontractors must: – Avoid disturbing heritage object or resources (when unearthed). – The chance find procedure must be followed (refer to Section 5.5.5).
Environmental pollution control measures (PCM)	Function and performance	Maintenance frequency
	To monitor early sign of soil, surface or groundwater contamination. Used daily to wet roads and stockpiles to reduce dust. Used daily to manage the storage, handling of hydrocarbons and response to spills.	Monthly maintenance as per planned maintenance schedule.
	Environmental monitoring Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.	

Domain 6 – Process plant					
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
Environmental monitoring program	Site code	Name	Monitoring purpose	Frequency	Threshold
	Noise – ambient noise	Noise monitoring network as determined by the specialist	Impact of Project-related noise on sensitive receptors	Biannual	45 dB daytime 35 dB nighttime
	Abstraction volumes – flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	A. Depositional dust fallout monitoring B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	A. Monthly B. Quarterly	A. 600 mg/m ² /day B. PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Baseline groundwater levels	Groundwater monitoring network	Required to monitor aquifer groundwater levels	Monthly	NA
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Groundwater quality	Groundwater	To monitor the change and trends	Quarterly	As per permit conditions

Domain 6 – Process plant					
		monitoring network	in groundwater quality for the site		
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) - The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. - The Domain Manager must complete the weekly compliance checklist. - Report any incidents reported during the month involving flora, fauna or construction employees. - Any complaints received from the community. Appointed ECO to report back to Domain Manager and Environmental Officer (monthly) - Report on the level of compliance with the requirements of the CEMP. - Advise on action items to be implemented to address complaints received from the community. - Report on the environmental monitoring program. - Notify the Domain Manager if monitoring identifies high dust fallout values exceeding the threshold and the corrective actions to be implemented.				
Environmental inspection/s	Daily	Weekly	Monthly	Other	
	Dust suppression requirement Inspect for potential soil, surface and groundwater contamination	Hydrocarbon spills and waste management	CEMP compliance audit.	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).	
Supporting Documents	Domain sign off (Appendix D), Spill Prevention and Management Plan, land clearing permit, water abstraction licence				

Domain 7 – Tailings storage facility (TSF) and tailings pipeline

Domain 7 – Tailings storage facility and tailings pipeline		
Domain manager	Process Manager	
Description	Facilities included in this domain are the TSF, TSF decant system, the storm water diversion drain, the fence around the TSF, the TSF pipework and associated pumps and the WRD emergency spillway. The TSF has a capacity for 35 million tonnes, a maximum height of 34 m above the original ground level and a calculated footprint of 306 ha.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months). B. Accessory work permit	A. Compliance to the permit conditions and the permit shall be renewed every three months. B. Renewed every 5 years or when material change occurs.
Potential issues or impacts	Air Quality – Dust generated from land clearing, use of excavators, bulldozers, loading and from vast areas of exposed land. Groundwater – Potential hydrocarbon spills and contamination of groundwater from heavy equipment and incorrect servicing procedures. – Earthwork activities may potentially intersect the underlying groundwater table. – Groundwater abstraction for construction activities (required for foundation preparation, soil compaction, dust suppression etc) could potentially impact the water levels of neighbouring boreholes. Biodiversity – Loss of vegetation due to excessive land clearing. – Loss of habitat and potential wildlife displacement. – Potential risk of wildlife colliding with Project vehicles. Visual – Disruption of the visual landscape and diminished sense of place. – Visual disturbance due to the generation and disposal of construction waste. Social – Noise and dust nuisance to neighbours from construction activities. – Potential disruption of social interactions. – Social tension between different groups or individuals within the community and mine construction workers.	

Domain 7 – Tailings storage facility and tailings pipeline		
	Noise – Noise impacts on employees. – Noise and dust nuisance to neighbours from construction activities. Heritage – Potential to unearth and disturb heritage objects or resources.	
Targets	Community: – Zero un-resolved community complaints relating to dust or noise. ○ This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Surface/groundwater contamination – Protect soils and preserve water resources by implementing measures to prevent contaminations. ○ This will be achieved through the timely management and reporting of contamination incidents. Rehabilitation – Rehabilitate dis-used roads, burrows and tracks that are deemed uneconomical or viable for future use. ○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.	
To minimise the effects the above-mentioned impacts may have on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:		
Construction management measures	Technical requirements	TSF foundation – Base layer should be constructed to ensure a thick and stable foundation. – A 2.5 m high jackal-proof mesh fence, which is lockable, shall be installed around the perimeter of the Tailings Storage Facility (TSF) footprint. – The Tailings Storage Facility (TSF) shall be equipped with a proper liner system to prevent leakage. Subsurface drainage materials will be incorporated to effectively manage and neutralize any potential seepage. – Weatherproof warning notices shall be prominently displayed at the entry point to the Tailings Storage Facility (TSF). – Any other technical requirements as determined by the construction engineers.

Domain 7 – Tailings storage facility and tailings pipeline

	Air quality	The conditions are to be complied with by the contractors and subcontractors: – Implement a phased land clearing approach to minimise the exposure of large areas, thereby reducing the potential for dust generation. – Ensure a proactive approach to weather monitoring and when high winds are predicted and ensure that operational water spray trucks are deployed when such activities are undertaken. – Trucks carrying excavated loads should be covered, where possible. – Dust masks to be issued to the construction workforce. – Dust suppression on surface haul roads and across all work areas in the domain. – Roads to be maintained regularly, weekly where these surfaces are active and prone to corrugation. – Adherence to established speed limits (40 km/h). – A complaint register must be in place and complaints should always be recorded. The following must be undertaken by the independent third-party (independent ECO) – Maintain the dust fallout monitoring program to monitor the effects and extent of dust dispersion during construction activities. – Maintain the PM10/2.5 monitoring program. – Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Biodiversity	The on-site Environmental Officer shall: – Ensure the land clearing permit, which authorises for the removal of vegetation and protected trees remains valid throughout the duration of the land clearing activities. – Conduct a wildlife and endemic species search and rescue operation prior to the commencement of construction activities. – All equipment intended for construction activities must be thoroughly cleaned and inspected for weeds and seeds before being used on site.

Domain 7 – Tailings storage facility and tailings pipeline		
		The contractors and subcontractors must comply with the following conditions: – Limit construction activities to the designated TSF footprint. – No off-road driving. – No pets are allowed on site. – Hunting and poaching are strictly prohibited. – The collection of firewood is strictly prohibited. – Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. – Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. – Briefings on snakes and snake bite first aid treatments shall be conducted. – Any animal fatalities (e.g. ground burrowing animals killed during land clearing and excavation activities) must be reported immediately to the environmental department and the incident must be recorded, as per the incident management procedure.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: – Only existing tracks will be utilised. – Topsoil (300 mm) excavated through site levelling should be stockpiled separately and should not exceed a height of 2 m. – Any other overburden materials should be stockpiled to a height not exceeding 20 m. – Erosion/sediment run offs should be controlled especially on stockpiles intended for longer periods.
	Water quality and availability	The contractors and subcontractors must: – Ensure refuelling of equipment and machinery should be done in controlled, bunded areas following standard refuelling procedures. – Fuel bowsers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume.

Domain 7 – Tailings storage facility and tailings pipeline

		– Report any soil or groundwater contamination as per incident reporting procedure. – To avoid stagnant water, drainage systems are to be in place to control sediments runoff during construction activities. – Re-use all possible water and continue to investigate and implement all possible areas of water saving and water use where possible. The third-party ECO must: – Maintain the groundwater quality monitoring program for the site throughout the construction phase.
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: – Only approved ablution facilities to be utilised. – If additional ablution facilities are required, the DWA is to be informed. – No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. – Ablution facilities to be cleaned and maintained on a regular basis. – Effluent water is to be contained, and leakages are to be cleaned up within 24 hours of the incident occurring. – Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. – No intractable or toxic waste should be allowed into the septic tanks. – If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. – No wastewater may be discharged into a river. The third-party ECO shall: – Regular effluent water quality samples to be taken by the environmental department (on a quarterly schedule as per the monitoring program).

Domain 7 – Tailings storage facility and tailings pipeline

	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: - Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. - Bins and skips must have lids, that can seal and are scavenger/baboon-proof. - All contractor waste is required to be disposed of off-site, but not in the host communities. - No fires will be allowed on-site, unless in approved designated areas (incinerators). - Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. - Scrap metal is to be collected in dedicated banded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility. - A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. - The construction area and surrounding are to be kept clean and maintained in a clean, orderly and presentable condition always. - The construction area and surrounding are to be kept clean and maintained in a clean, orderly and presentable condition always.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: - Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. - Pre-start checks to be conducted daily on vehicles and equipment. - All diesel-powered equipment and machinery should be kept at a high level of maintenance.

Domain 7 – Tailings storage facility and tailings pipeline		
		– Conduct construction between dawn and dusk (day shift only), extraordinary circumstances requiring night work require special approval by Osino Management. – Maintain road surfaces regularly to repair potholes etc. – Avoid unnecessary equipment always idling. – Employees to be issued with ear plugs during construction activities. – A noise complaints register must be kept, and noise complaints should be addressed in line with the complaint management procedures.
	Visual	Contractors and subcontractors must comply with the following conditions: – Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances. – Machinery and equipment should only be kept on-site for the duration of the construction activities. – Keep topsoil and overburden stockpiles within the recommended height limits.
	Heritage	All contractors and subcontractors must: – Avoid disturbing heritage object or resources (when unearthed). – The chance find procedure must be followed (refer to Section 5.5.5).
Environment al pollution control measures (PCM)	Function and performance	Maintenance frequency
	Used daily to wet roads and stockpiles to reduce dust	Monthly maintenance as per planned maintenance schedule
	Environmental monitoring	
	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed. Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).	

Domain 7 – Tailings storage facility and tailings pipeline					
Environment al Monitoring program	Site code	Name	Monitoring purpose	Frequency	Threshold
	Noise – ambient noise	Noise monitoring network as determined by the specialist	Impact of Project-related noise on sensitive receptors	Biannual	45 dB daytime 35 dB nighttime
	A. Depositional dust fallout monitoring B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	A. Monthly B. Quarterly	600 mg/m ² /day B. PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	Groundwater levels	Baseline groundwater monitoring network	Required to monitor aquifer groundwater levels	Monthly	NA
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions

Domain 7 – Tailings storage facility and tailings pipeline				
Environment al reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) – The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. – The Domain Manager must complete the weekly compliance checklist. – Any incidents reported during the month involving flora, fauna or construction employees. – Any community complaints received from the community. – The volumes of water used during the construction activities (including any intersection events of the underlying groundwater). Appointed ECO to report back to the Domain Manager and Environmental Officer – Report on the level of compliance with the requirements of the CEMP. – Provide written feedback on the environmental monitoring program. – Advise on action items to be implemented to address complaints received from the community. – Notify the Domain Manager if monitoring identifies high dust fallout values exceeding the threshold and the corrective actions to be implemented.			
Environment al inspection/s	Daily	Weekly	Monthly	Other
	Dust suppression requirement	Hydrocarbon spills, waste management	CEMP compliance audit	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).
Supporting documents	Land clearing permit, Waste Management Plan, Domain sign off (Appendix D).			

Domain 8 – Bioremediation site

Domain 8 – Bioremediation site		
Domain manager	Environmental Manager	
Description	The bioremediation site is made up of four (4) cells. The domain consists of the facility and its association infrastructure. The total footprint of the bioremediation site is calculated to be 0.75 ha.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months). B. Accessory work permit	A. Compliance to the permit conditions and the permit shall be renewed every three months. B. Renewed every 5 years or when material change occurs.
Potential issues or impacts	Air Quality – Dust generated from land clearing, use of excavators, bulldozers, loading and from vast areas of exposed land. Groundwater – Potential hydrocarbon spills and contamination of groundwater from heavy equipment and incorrect servicing procedures. – Groundwater abstraction for construction activities (required for foundation preparation, soil compaction, dust suppression etc) could potentially impact the water levels of neighbouring boreholes. Surface water – Potential for sediments runoff and erosion. – The use of chemicals (e.g. fuels, oils and lubricants) can leak or wash into surface waters. Biodiversity – Loss of vegetation due to excessive land clearing. – Loss of habitat and potential wildlife displacement. Visual – Disruption of the visual landscape and diminished sense of place. – Visual disturbance due to the generation and disposal of construction waste. Noise – Noise impacts on employees. – Noise and dust nuisance to neighbours from construction activities. Social – Noise and dust nuisance to neighbours from construction activities.	

Domain 8 – Bioremediation site			
	– Potential disruption of social interactions. – Social tension between different groups or individuals within the community and mine construction workers. Heritage – Potential to unearth and disturb heritage objects or resources.		
Targets	Community – Zero un-resolved community complaints relating to dust or noise. ○ This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Soil, surface/groundwater contamination – Protect soils and preserve water resources by implementing measures to prevent contaminations. ○ This will be achieved through the timely management and reporting of contamination incidents. Rehabilitation – Rehabilitate dis-used roads, burrows and tracks that are deemed uneconomical or viable for future use. ○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.		
	To minimise the effects the above-mentioned impacts may have on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:		
	Construction management measures	Technical requirement(s)	Bioremediation facility – Bioremediation facility must be lined to prevent seepage into groundwater or the environment.
		Air quality	The conditions are to be complied with by the contractors and subcontractors: – Ensure a proactive approach to weather monitoring and when high winds are predicted and ensure that operational water spray trucks are deployed when such activities are undertaken. – Trucks carrying excavated loads should be covered, where possible. – Dust masks to be issued to the construction workforce. – Dust suppression on surface haul roads and across all work areas in the domain. – Adherence to established speed limits (40 km/h). – Any construction vehicle found to be emitting excessive smoke, such as thick, black or pungent exhaust fumes or

Domain 8 – Bioremediation site		
		displaying signs of significant hydrocarbon spillage must be immediately stopped from operating until it is determined to be mechanically sound and free of defects. – A complaint register must be in place and complaints should always be recorded. The following must be undertaken by the independent third-party (independent ECO) – Maintain the dust fallout monitoring program to monitor the effects and extent of dust dispersion during construction activities. – Maintain the PM10/2.5 monitoring program throughout the construction phase. – Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Biodiversity	The on-site Environmental Officer shall: – Ensure the land clearing permit, which authorises for the removal of vegetation and protected trees remains valid throughout the duration of the land clearing activities. – Conduct a wildlife and endemic species search and rescue operation prior to the commencement of construction activities. – Ensure all equipment intended for construction activities must be thoroughly cleaned and inspected for weeds and seeds before being used on site. – Sign off all Method Statements prior to the commencement of construction work. The contractors and subcontractors must comply with the following conditions: – Limit construction activities to the domain footprint. – Riparian vegetation along the Okawayo tributary and Khan River is to be preserved to the greatest extent possible. – No off-road driving. – No pets are allowed on site. – Hunting and poaching are strictly prohibited.

Domain 8 – Bioremediation site		
		- The collection of firewood is strictly prohibited. - Nighttime travelling is prohibited. - Existing roads and tracks are to be used. - All animals have the right of way. - Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible. - Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. - Any animal fatalities (e.g. ground burrowing animals killed during land clearing and excavation activities) must be reported immediately to the environmental department and the incident must be recorded, as per the incident management procedure. - All incidents to be investigated and recorded as per the incident management procedure.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: - Collection of soil or sand from the Khan or Okawayo River for construction purposes is strictly prohibited. - Only existing tracks will be utilised. - Topsoil (300 mm) likely to be excavated should be stockpiled separately and should not exceed a height of 2 m. - Overburden materials excavated should be stockpiled to a height not exceeding 20 m.
	Water quality and availability	The contractors and subcontractors must: - Re-use all possible water and continue to investigate and implement all possible areas of water saving and water use where possible. - To avoid stagnant water, drainage systems are to be in place to control sediments runoff during construction activities. - Refuelling of equipment and machinery should be done in controlled, bunded areas following standard refuelling procedures. - Fuel bowsers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume.

Domain 8 – Bioremediation site		
		- Report any soil or groundwater contamination as per incident reporting procedure. The third-party ECO must: - Maintain the groundwater monitoring program throughout the construction phase to assess abstraction impacts on neighbouring boreholes.
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: - Only approved ablution facilities to be utilised. - If additional ablution facilities are required, the DWA is to be informed. - No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. - Ablution facilities to be cleaned and maintained on a regular basis. - Effluent water is to be contained and leakages are to be cleaned up within 24 hours of the incident occurring. - Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. - No intractable or toxic waste should be allowed into the septic tanks. - If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. - No wastewater may be discharged into a river. The third-party ECO shall: - Conduct regular effluent water quality sampling (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: - Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. - Efforts must be made to recycle waste where possible. - Bins and skips must have lids, that can seal and are scavenger/baboon-proof.

Domain 8 – Bioremediation site		
		- All contractor waste is required to be disposed of off-site, but not in the host communities. - No fires will be allowed on-site, unless in approved designated areas (incinerators). - Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. - Scrap metal is to be collected in dedicated bunded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility. - A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. - The construction area and surrounding are to be kept clean and maintained in a clean, orderly and presentable condition always.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: - Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. - Pre-start checks to be conducted daily on vehicles and equipment. - All diesel-powered equipment and machinery should be kept at a high level of maintenance. - Ensure the best available machinery and equipment with low sound output is used. - Construction activities are to be conducted between dawn and dusk. - Avoid unnecessary equipment always idling. - Employees to be issued with ear plugs during construction activities. - A noise complaints register must be kept, and noise complaints should be addressed in line with the complaint management procedures. The third-party ECO must:

Domain 8 – Bioremediation site					
		– Maintain the noise monitoring program to assess the impacts of noise on receptors.			
	Visual	Contractors and subcontractors must comply with the following conditions: – Machinery and equipment should only be kept on-site for the duration of the construction activities. – Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances.			
	Heritage	All contractors and subcontractors must: – Avoid disturbing heritage object or resources (when unearthed). – The chance find procedure must be followed (refer to Section 5.5.5).			
Environmental pollution control measures (PCM)	Function and performance			Maintenance frequency	
	Used daily to wet roads to reduce dust.			Monthly maintenance as per planned maintenance schedule	
	Environmental monitoring				
	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
Environmental monitoring program	Site code	Name	Monitoring purpose	Frequency	Threshold
	As part of the assessment for the overall Project impacts				
	Noise – ambient noise	Noise monitoring network as determined by the specialist	Impact of Project-related noise on sensitive receptors	Biannual	45 dB daytime 35 dB nighttime

Domain 8 – Bioremediation site					
	A. Depositional dust fall out monitoring B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	A. Monthly B. Quarterly	600 mg/m ² /day B. PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Groundwater levels	Baseline groundwater monitoring network	Required to monitor aquifer groundwater levels	Monthly	NA
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) - The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. - Report any complaints recorded from the community members. - Any incidents reported during the month involving flora, fauna or construction employees. - Any other aspects worth reporting (e.g. spills and contaminations).				

Domain 8 – Bioremediation site				
	Appointed ECO to report back to the Domain Manager. – Report on the level of compliance with the requirements of the CEMP. – Provide written feedback on environmental monitoring programs (groundwater levels and quality, as well as dust fallout results). – Provide guidance on the appropriate response and action items to be implemented in order to effectively address and resolve complaints received from the community. – Notify the Domain Manager if monitoring identifies high dust fallout values exceeding the threshold and the corrective actions to be implemented.			
Environment al inspection/s	Daily	Weekly	Monthly	Other
	Dust suppression requirement	Hydrocarbon spills, waste management	CEMP compliance audit	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).
Supporting documents	Land clearing permit, Waste Management Plan, Spill Response and Management Plan, Domain sign off (Appendix D).			

Domain 9 – Sewerage treatment plants and water storage facilities

Domain 9 – Sewerage treatment plants and water storage facilities		
Domain manager	Engineering Manager	
Description	This domain consists of the site sewerage treatment plant, the management camp sewerage treatment plant and their associated evaporation ponds and infrastructure. The sewerage treatment plant is calculated to cover an area of approximately 3 ha.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months). B. Accessory work permit	A. Compliance to the permit conditions and the permit shall be renewed every three months. B. Renewed every 5 years or when material change occurs.
Potential issues or impacts	Air Quality – Dust generated from land clearing, use of excavators, bulldozers, loading and from vast areas of exposed land. Groundwater – Potential hydrocarbon spills and contamination of groundwater from heavy equipment and incorrect servicing procedures. – Earthwork activities may potentially intersect the underlying groundwater table. – Groundwater abstraction for construction activities (required for foundation preparation, soil compaction, dust suppression etc) could potentially impact the water levels of neighbouring boreholes. Biodiversity – Loss of vegetation due to land clearing activities. – Loss of habitat and potential wildlife displacement. Visual – Disruption of the visual landscape and diminished sense of place. – Visual disturbance due to the generation and disposal of construction waste. Social – Noise and dust nuisance to neighbours from construction activities. – Potential disruption of social interactions. – Social tension between different groups or individuals within the community and mine construction workers. Noise	

Domain 9 – Sewerage treatment plants and water storage facilities		
	– Noise impacts on employees. – Noise and dust nuisance to neighbours from construction activities. Heritage – Potential to unearth and disturb heritage objects or resources.	
Targets	Community – Zero un-resolved community complaints relating to dust or noise. ○ This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Soil, surface/groundwater contamination – Protect soils and preserve water resources by implementing measures to prevent contaminations. ○ This will be achieved through the timely management and reporting of contamination incidents. Rehabilitation – Rehabilitate dis-used roads, burrows and tracks that are deemed uneconomical or viable for future use. ○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.	
To minimise the effects the above-mentioned impacts may have on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:		
Construction management measures	Technical requirement(s)	Waste water treatment systems – The wastewater management systems (evaporation ponds) shall be lined to prevent leakages and ensure proper containment of wastewater. – The security fence shall be installed to prevent unauthorized access by both people and animals.
	Air quality	The conditions are to be complied with by the contractors and subcontractors: – Ensure a proactive approach to weather monitoring and when high winds are predicted and ensure that operational water spray trucks are deployed when such activities are undertaken. – Trucks carrying excavated loads should be covered, where possible. – Dust masks to be issued to the construction workforce. – Dust suppression on surface haul roads and across all work areas in the domain.

Domain 9 – Sewerage treatment plants and water storage facilities

		– Adherence to the established speed limit for the site (40 km/h). – A complaint register must be in place and complaints should always be recorded. The following must be undertaken by the independent third-party (independent ECO) – Maintain the dust fallout monitoring program to monitor the effects and extent of dust dispersion during construction activities. – Maintain the PM10/2.5 monitoring program throughout the construction phase. – Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Biodiversity	The on-site Environmental Officer shall: – Ensure the land clearing permit, which authorises for the removal of vegetation and protected trees remains valid throughout the duration of the land clearing activities. – Conduct a wildlife and endemic species search and rescue operation prior to the commencement of construction activities. – Ensure that all equipment intended for construction activities are thoroughly cleaned and inspected for weeds and seeds before being used on site. The contractors and subcontractors must comply with the following conditions: – Limit construction activities to the domain footprint. – No off-road driving. – All animals have the right of way. – No pets are allowed on site. – Existing roads and tracks are to be used. – Nighttime travelling is prohibited. – Hunting and poaching are strictly prohibited. – The collection of firewood is strictly prohibited. – Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible.

Domain 9 – Sewerage treatment plants and water storage facilities

		– Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. – Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. – Any animal fatalities (e.g. ground burrowing animals killed during land clearing and excavation activities) must be reported immediately to the environmental department and the incident must be recorded, as per the incident management procedure. – All incidents to be investigated and recorded as per the incident management procedure.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: – Collection of soil or sand from the Khan or Okawayo River for construction purposes is strictly prohibited. – Only existing tracks will be utilised. – Topsoil (300 mm) excavated through site levelling should be stockpiled separately and should not exceed a height of 2 m. – Any other overburden materials should be stockpiled to a height not exceeding 20 m.
	Water quality and availability	The contractors and subcontractors must: – Re-use all possible water and continue to investigate and implement all possible areas of water saving and water use where possible. – Fuel bowsers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume. – To avoid stagnant water, drainage systems are to be in place to control sediments runoff during construction activities. – Ensure refuelling of equipment and machinery should be done in controlled, banded areas following standard refuelling procedures. – Report any soil, surface water or groundwater contamination as per incident reporting procedure.

Domain 9 – Sewerage treatment plants and water storage facilities

		The third-party ECO must: – Maintain the groundwater quality monitoring program and reporting for the site throughout the construction phase.
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: – Only approved ablution facilities to be utilised. – If additional ablution facilities are required, the DWA is to be informed. – No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. – Ablution facilities to be cleaned and maintained on a regular basis. – Effluent water is to be contained and leakages are to be cleaned up within 24 hours of the incident occurring. – Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. – No intractable or toxic waste should be allowed into the septic tanks. – If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. – No wastewater may be discharged into a river. The third-party ECO shall: – Conduct regular effluent water quality sampling (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: – Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. – Efforts must be made to recycle waste where possible. – Bins and skips must have lids, that can seal and are scavenger/baboon-proof. – All contractor waste is required to be disposed of off-site, but not in the host communities.

Domain 9 – Sewerage treatment plants and water storage facilities

		- No fires will be allowed on-site, unless in approved designated areas (incinerators). - Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. - Scrap metal is to be collected in dedicated bunded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility. - A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: - Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. - Pre-start checks to be conducted daily on vehicles and equipment. - All diesel-powered equipment and machinery should be kept at a high level of maintenance. - Ensure the best available machinery and equipment with low sound output is used. - Construction activities are to be conducted between dawn and dusk. - Maintain road surfaces regularly to repair potholes etc. - Avoid unnecessary equipment always idling. - Employees to be issued with ear plugs during construction activities. - A noise complaints register must be kept, and noise complaints should be addressed in line with the grievance mechanisms. The third-party ECO must: - Maintain the noise monitoring program to assess the impacts of noise on receptors.

Domain 9 – Sewerage treatment plants and water storage facilities					
	Visual	Contractors and subcontractors must comply with the following conditions: – Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances. – Machinery and equipment should only be kept on-site for the duration of the construction activities. – Keep topsoil and overburden stockpiles within the recommended height limits (2 m and 20 m, respectively).			
	Heritage	All contractors and subcontractors must: – Avoid disturbing heritage object or resources (when unearthed). – The chance find procedure must be followed (refer to Section 5.5.5).			
Environmental pollution control measures (PCM)	Function and performance			Maintenance frequency	
	Used daily to wet roads and stockpiles to reduce dust			Monthly maintenance as per planned maintenance schedule	
	Environmental monitoring				
	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
Environmental monitoring program	Site code	Name	Monitoring purpose	Frequency	Threshold
	Noise – ambient noise	Noise monitoring network as determined by the specialist	Impact of Project-related noise on sensitive receptors	Biannual	45 dB daytime 35 dB nighttime
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction	Monthly	As per permit conditions.

Domain 9 – Sewerage treatment plants and water storage facilities

			volumes to DWA.		
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	A. Depositional dust fallout monitoring B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	A. Monthly B. Quarterly	600 mg/m ² /day B. PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Groundwater levels	Baseline groundwater monitoring network	Required to monitor aquifer groundwater levels	Monthly	NA
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) – The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. – The Domain Manager must complete the weekly compliance checklist. – Report any community complaints received from the community. – Any incidents reported during the month involving flora, fauna or construction employees. – The volumes of water used during the construction activities (including any intersection events of the underlying groundwater). – Any other aspects worth reporting (e.g. spills and contaminations).				

Domain 9 – Sewerage treatment plants and water storage facilities				
	Appointed ECO to report back to the Domain Manager and Environmental Officer (monthly) – Report on the level of compliance with the requirements of the CEMP. – Provide written feedback on environmental monitoring programs (groundwater levels and quality, as well as dust fallout results). – Provide guidance on the appropriate response and action items to be implemented in order to effectively address and resolve complaints received from the community. – Notify the Domain Manager if monitoring identifies high dust fallout values exceeding the threshold and the corrective actions to be implemented.			
Environmental inspection/s	Daily	Weekly	Monthly	Other
	Dust suppression requirement	Hydrocarbon spills, waste management	CEMP compliance audit	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).
Supporting documents	Land clearing permit, Waste Management Plan, Spill Response and Management Plan, Domain sign off (Appendix D).			

Domain 10 – Engineering workshop

Domain 10 – Engineering workshop		
Domain manager	Engineering Manager	
Description	This domain comprises the HME workshop, the drill rig workshop, mechanical and rebuild workshop, boilermaker workshop, ancillary and LV workshop, wash bays and refuelling stations. The domain footprint is calculated to cover approximately 12.4 ha.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Water abstraction licence B. Accessory work permit C. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months).	A. Compliance with abstraction volumes as stipulated in the approved licence. B. Renewed every 5 years or when material change occurs. C. Compliance to the permit conditions and the permit shall be renewed every three months.
Potential issues or impacts	Groundwater – Potential hydrocarbon spills and contamination of groundwater from heavy equipment and incorrect servicing procedures. – Groundwater abstraction for construction activities could potentially impact the water levels of neighbouring boreholes. Air quality – Dust generated from land clearing, use of excavators, bulldozer's activities could disperse and affect neighbouring communities. Biodiversity – Loss of vegetation due to land clearing activities. – Loss of habitats and potential wildlife displacement. Noise – Noise impacts on employees. – Noise nuisance to neighbours from construction activities. Social – Noise and dust nuisance to neighbours from construction activities. – Potential disruption of social interactions.	

Domain 10 – Engineering workshop	
	– Social tension between different groups or individuals within the community and mine construction workers. Traffic – Delivery heavy load vehicles: alteration of traffic flow, particularly at the C33 and D1941 intersection. – Degradation of road surfaces caused by constant use and the impact of heavy vehicles. Visual – The use of cranes and masts during the construction phase may result in visual nuisance as their substantial size and height can significantly alter the landscape. – Loss of sense of place due to the generation and improper disposal of construction waste. Heritage – Potential to unearth and disturb heritage objects (resources).
Targets	Community – Zero un-resolved community complaints relating to dust or noise. ○ This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Soil, surface/groundwater contamination – Protect soils and preserve water resources by implementing measures to prevent contaminations. ○ This will be achieved through the timely management and reporting of contamination incidents. Roads – Enhance the efficiency and safety of road operations during construction activities. ○ This shall be achieved through appropriate road signs, clear signage, proper lane marking and use of warning systems that communicate potential hazards. Rehabilitation – Rehabilitate dis-used roads, burrows and tracks that are deemed uneconomical or viable for future use. ○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.
To minimise the effects the above-mentioned impacts may have on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:	

Domain 10 – Engineering workshop		
Construction management measures	Site establishment	Contractors and subcontractors must: – Ensure proper compaction and foundation of all work areas within the domain. – Ensure the wash bays and concrete bunds are constructed in accordance with the approved Method Statements to ensure the effective operation of these systems and proper containment of spills.
	Air quality	The conditions are to be complied with by the contractors and subcontractors: – Ensure a proactive approach to weather monitoring and when high winds are predicted and ensure that operational water spray trucks are deployed when such activities are undertaken. – Dust masks to be issued to the construction workforce. – Dust suppression on surface haul roads and water spray across all work areas in the domain. – Roads to be maintained regularly, weekly where these surfaces are very active and prone to corrugation. – Adherence to established speed limits (40 km/h). – Trucks carrying excavated loads should be covered, where possible. – Any construction vehicle found to be emitting excessive smoke, such as thick, black or pungent exhaust fumes or displaying signs of significant hydrocarbon spillage must be immediately stopped from operating until it is determined to be mechanically sound and free of defects. – A complaint register must be kept. The following must be undertaken by the independent third-party (independent ECO)

Domain 10 – Engineering workshop

		– Maintain the dust fallout monitoring program to monitor the effects and extent of dust dispersion during construction activities. – Maintain the PM10/2.5 monitoring program throughout the construction phase. – Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Biodiversity	The on-site Environmental Officer shall: – Ensure the land clearing permit, which authorises for the removal of vegetation and protected trees remains valid throughout the duration of the land clearing activities. – Conduct a wildlife and endemic species search and rescue operation prior to the commencement of construction activities. – Ensure all equipment intended for construction activities must be thoroughly cleaned and inspected for weeds and seeds before being used on site. The contractors and subcontractors must comply with the following conditions: – Ensure proper stacking and storage of tools and equipment to prevent trip, slip, fall hazards or animals nesting. – Existing tracks should be utilised, and new tracks should only be developed in areas where no tracks exist. – All animals have the right of way. – Nighttime travelling is prohibited. – Limit construction activities to the designated domain footprint. – No pets are allowed on site. – Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible. – Hunting and poaching are strictly prohibited. – Burrows/trenches that are created without any further future purpose should be backfilled.

Domain 10 – Engineering workshop

		- The collection of firewood is strictly prohibited. - Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. - Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. - Any animal fatalities (e.g. ground burrowing animals killed during land excavation) must be reported immediately reported to the environmental department and the incident must be recorded, as per the incident management procedure. - Incidents involving wildlife and staff, visitors and/or contractors to be immediately reported to the environmental department.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: - Collection of soil or sand from the Khan or Okawayo River for construction purposes is strictly prohibited, - Only existing tracks will be utilised. - Topsoil (300 mm) excavated during site levelling should be stockpiled separately and should not exceed a height of 2 m. - Any other overburden materials should be stockpiled to a height not exceeding 20 m.
	Water quality and availability	The contractors and subcontractors must: - Re-use all possible water and continue to investigate and implement all possible areas of water saving and water use where possible. - Ensure refuelling of equipment and machinery should be done in controlled, bunded areas following standard refuelling procedures. - To avoid stagnant water, drainage systems or water collection measures are to be in place to

Domain 10 – Engineering workshop

		control sediments runoff during construction activities. – Fuel bowzers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume. – Staff involved in the transport, handling, and storage of hazardous chemicals must be competent and adequately trained in accident response procedures. – Report any soil, surface water or groundwater contamination as per incident reporting procedure. – A complaint register must be kept and complaints must be addressed as per the grievance mechanisms. The third-party ECO must: – Maintain the groundwater monitoring program to assess abstraction impacts on neighbouring boreholes.
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: – Only approved ablution facilities to be utilised. – If additional ablution facilities are required, the DWA is to be informed. – No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. – Ablution facilities to be cleaned and maintained on a regular basis. – Effluent water is to be contained and leakages are to be cleaned up within 24 hours of the incident occurring. – Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib.

Domain 10 – Engineering workshop

		- No intractable or toxic waste should be allowed into the septic tanks. - If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. - No wastewater may be discharged into a river. The third-party ECO shall: - Conduct regular effluent water quality sampling (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: - Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. - Efforts must be made to recycle waste where possible. - Bins and skips must have lids, that can seal and are scavenger/baboon-proof. - All contractor waste is required to be disposed of off-site, but not in the host communities. - No waste may be burnt or buried on site. Except for discarded and any empty wooden crates. There will be two dedicated facilities for this on site during the construction phase. - No fires will be allowed on-site, unless in approved designated areas (incinerators). - Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. - Scrap metal is to be collected in dedicated bunded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility.

Domain 10 – Engineering workshop

		- A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: - Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. - Pre-start checks to be conducted daily on equipment. - Conduct construction between dawn and dusk. - All diesel-powered equipment and machinery should be kept at a high level of maintenance. - Ensure the best available machinery and equipment with low sound output is used. - Avoid unnecessary equipment always idling. - Employees to be issued with appropriate PPE (i.e. ear plugs) during construction activities. - A noise complaints register must be kept, and noise complaints should be addressed in line with the complaint management procedures. The third-party ECO must: - Maintain the noise monitoring program to assess the impacts of noise on receptors.
	Visual	Contractors and subcontractors must comply with the following conditions: - Masts, cranes and other tall construction equipment should only be retained on site for the duration of construction activities. - Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances. - Keep topsoil and overburden stockpiles within the recommended height limits.

Domain 10 – Engineering workshop		
	Traffic	The contractors and subcontractors working in the domain shall ensure the following conditions are complied with: – The Khan River or Okawayo River should not be used as a general access route. – Construction vehicles and truck delivering equipment to adhere to the site speed limits established for the site (40 km/h). – Drivers (licenced) are expected to adhere to all traffic rules. – During heavy load vehicle deliveries, banksmen or spotters must be used to assist private vehicles in accessing properties and to coordinate the flow of traffic at intersections, including site entry points. – A complaint register must be kept.
	Heritage	All contractors and subcontractors must: – Avoid disturbing heritage object or resources (when unearthed). – The chance find procedure must be followed (refer to Section 5.5.5).
Environmental pollution control measures (PCM)	Function and performance	Maintenance frequency
	To monitor early sign of soil, surface or groundwater contamination. Used daily to wet roads and stockpiles to reduce dust. Used daily to manage the storage, handling of hydrocarbons and spill response kits.	Monthly maintenance as per planned maintenance schedule.
	Environmental monitoring Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.	

Domain 10 – Engineering workshop

	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
Environmental monitoring program	Site code	Name	Monitoring purpose	Frequency	Threshold
	Noise – ambient noise	Noise monitoring network as determined by the specialist	Impact of Project-related noise on sensitive receptors	Biannual	45 dB daytime 35 dB nighttime
	A. Depositional dust fallout monitoring B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	A. Monthly B. Quarterly	A. 600 mg/m ² /day B. PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Baseline groundwater levels	Groundwater monitoring network	Required to monitor aquifer groundwater levels	Monthly	NA
	Abstraction volumes – flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Groundwater quality	Groundwater monitoring network	To monitor the change and trends in	Quarterly	As per permit conditions

Domain 10 – Engineering workshop					
			groundwater r quality for the site		
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) - The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. - The Domain Manager shall conduct weekly inspection in the domain to determine the level of compliance to the CEMP. - Report any incidents reported during the month involving flora, fauna or construction employees. - Any hydrocarbon spills, contamination of soil, surface or groundwater resources. - Any complaints received from the community. Appointed ECO to report back to the Domain Manager and Environmental Officer (monthly) - Report on the level of compliance with the requirements of the CEMP. - Advise on action items to be implemented to address complaints received from the community. - Provide monthly written report on the environmental monitoring program. - Notify the Domain Manager if monitoring identifies high dust fallout values exceeding the threshold and the corrective actions to be implemented.				
	Environmental inspection/s	Daily Dust suppression requirement Inspect for potential soil, surface and groundwater contamination	Weekly Hydrocarbon spills and waste management	Monthly CEMP compliance audit.	Other Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).
Supporting Documents	Domain sign off (Appendix D), Spill Prevention and Management Plan, land clearing permit, water abstraction licence.				

Domain 11 - Equipment, parts and material supply

Domain 11 - Engineering workshop		
Domain manager	Supply Manager	
Description	This domain comprises the Main Warehouse, the Reagent Store and the Plant Warehouse and all associated infrastructure and yards. The total footprint of the domain is calculated to be approximately 6 ha.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Water abstraction licence B. Accessory work permit C. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months).	A. Compliance with abstraction volumes as stipulated in the approved licence. B. Renewed every 5 years or when material change occurs. C. Compliance to the permit conditions and the permit shall be renewed every three months.
Potential issues or impacts	Groundwater – Soil and groundwater contamination from hydrocarbon spills from construction containers. Surface water – Potential for sediments runoff and erosion. – The use of chemicals (e.g. fuels, oils and lubricants) can leak or wash into surface waters. Air quality – The potential for land clearing activities and site leveling to generate dust that could impact neighbouring communities. Noise – Noise impacts on employees. – Community severance and disruption of social interactions. Social – Noise and dust nuisance to neighbours from construction activities.	

Domain 11 - Engineering workshop	
	– Potential disruption of social interactions. – Social tension between different groups or individuals within the community and mine construction workers. Biodiversity – Potential risk of wildlife colliding with Project vehicles. – Loss of vegetation and habitat destruction due to land clearing activities. Traffic – Delivery heavy load vehicles: alteration of traffic flow, particularly at the C33 and D1941 intersection. – Degradation of road surfaces caused by constant use and the impact of heavy vehicles. Visual – Disruption to the visual landscape and diminished sense of place. – The use of cranes and masts during the construction phase may result in visual nuisance as their substantial size and height can significantly alter the landscape Heritage – Potential to unearth and disturb heritage objects or resources.
Targets and reporting	Community – Zero un-resolved community complaints relating to dust or noise. ○ This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Soil, surface/groundwater contamination – Protect soils and preserve water resources by implementing measures to prevent contaminations. ○ This will be achieved through the timely management and reporting of contamination incidents. Roads – Enhance the efficiency and safety of road operations during construction activities. ○ This shall be achieved through appropriate road signs, clear signage, proper lane marking and use of warning systems that communicate potential hazards. Rehabilitation – Rehabilitate dis-used roads, burrows and tracks that are deemed uneconomical or viable for future use.

Domain 11 - Engineering workshop		
		○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.
To minimise the effects the above-mentioned impacts on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:		
Construction management measures	Site establishment	Contractors and subcontractors – Ensure proper compaction and concrete foundation of all work areas within the domain.
	Biodiversity	The on-site Environmental Officer shall: – Conduct a wildlife and endemic species search and rescue operations prior to the commencement of construction activities. – Ensure the land clearing permit is acquired from the Department of Forestry (DoF) prior to the commencement of land clearing activities. – Ensure that all equipment to be used for any earth moving activity (including and specifically those working on the river and road diversions) must be cleaned and free from soil, weed and seeds prior to being used on site. – Sign off all Method Statements prior to the commencement of construction work. The contractors and subcontractors must comply with the following conditions: – Minimise vegetation clearing by restricting activities to the designated domain footprint. – No pets are allowed on site. – Riparian vegetation along the Okawayo tributary and Khan River is to be preserved to the greatest extent possible. – All animals have the right of way. – Hunting and poaching are strictly prohibited. – Existing roads and tracks are to be used. – Nighttime travelling is prohibited. – Incidents involving wildlife and staff, visitors and/or contractors to be immediately reported to the environmental department. – Burrows/trenches that are created without any further future purpose should be backfilled.

Domain 11 - Engineering workshop		
		- All incidents to be investigated and recorded as per the incident management procedure. - The collection of firewood is strictly prohibited. - Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible. - Any animal fatalities (e.g. ground burrowing animals killed during land excavation) must be reported immediately reported to the environmental department and the incident must be recorded, as per the incident management procedure.
	Air quality	The conditions are to be complied with by the contractors and subcontractors: - The construction team shall be issued with dust masks. - Minimise dust generated on-site by having basic control measures in place such as regulating the speed of excavators, bulldozers, graders and other road construction machinery. - Speed limit of 40 km/h for the site is to be adhered to. - To control dust, water sprays shall be applied to frequently used unpaved road sections and during road construction activities. - Any construction vehicle found to be emitting excessive smoke, such as thick, black or pungent exhaust fumes or displaying signs of significant hydrocarbon spillage must be immediately stopped from operating until it is determined to be mechanically sound and free of defects. - Trucks carrying loads should be covered, where possible. - A complaint register must be kept. The following must be undertaken by the independent third-party (independent ECO) - Maintain the dust fallout monitoring program during the duration of construction activities. - Maintain the PM10/2.5 monitoring program throughout the construction phase. - Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Traffic	The contractors and subcontractors working in the domain shall ensure the following conditions are complied with:

Domain 11 - Engineering workshop		
		- The Khan River or Okawayo River should not be used as a general access route. - Drivers (licenced) are expected to adhere to all traffic rules. - Roads to be maintained regularly, bi-weekly where surfaces are very active and prone to corrugation. - Use banksmen or spotter to assist private vehicles in accessing properties or coordinating the flow of traffic at intersections (site entry points). - A complaint register must be kept.
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: - Only approved ablution facilities to be utilised. - If additional ablution facilities are required, the DWA is to be informed. - No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. - Ablution facilities to be cleaned and maintained on a regular basis. - Effluent water is to be contained and leakages are to be cleaned up within 24 hours of the incident occurring. - Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. - No intractable or toxic waste should be allowed into the septic tanks. - If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. - No wastewater may be discharged into a river. The third-party ECO shall: - Conduct regular effluent water quality sampling (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: - Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. - Efforts must be made to recycle waste where possible.

Domain 11 - Engineering workshop		
		- Bins and skips must have lids, that can seal and are scavenger/baboon-proof. - All contractor waste is required to be disposed of off-site, but not in the host communities. - No fires will be allowed on-site, unless in approved designated areas (incinerators). - Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. - Scrap metal is to be collected in dedicated bunded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility. - A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. - The work areas are to be kept clean and maintained in a clean, orderly and presentable conditions always.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: - Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. - Pre-start checks to be conducted daily on equipment. - Ensure the best available machinery and equipment with low sound output is used. - Construction activities are to be conducted between dawn and dusk. - Employees to be issued with ear plugs. - Avoid unnecessary equipment always idling. - Equipment, vehicles and heavy mining equipment (HME) to be serviced and maintained regularly. - A complaint register must be kept. The third-party ECO must: - Maintain the noise monitoring program to assess the impacts of noise on receptors.
	Visual	Contractors and subcontractors must comply with the following conditions:

Domain 11 - Engineering workshop		
		- Masts, cranes and other tall construction equipment should only be retained on site for the duration of construction activities. - Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances. - Keep topsoil and overburden stockpiles within the recommended height limits.
	Water quality and availability	The contractors and subcontractors must: - Ensure heavy delivery vehicles are kept in good mechanical condition to minimise noise associated with their operation and to prevent hydrocarbon spills. - To avoid stagnant water, drainage systems or water collection measures are to be in place to control sediments runoff during construction activities. - Ensure refuelling of equipment and machinery should be done in controlled, bunded areas following standard refuelling procedures. - Fuel bowsers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume. - Staff involved in the transport, handling, and storage of hazardous chemicals must be competent and adequately trained in accident response procedures. - Report any soil, surface water or groundwater contamination as per incident reporting procedure. - Maintain a complaint register throughout the construction phase. The third-party ECO must: - Maintain the groundwater quality monitoring program and reporting for the site throughout the construction phase.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: - Collection of soil or sand from the Khan or Okawayo River for construction purposes is strictly prohibited. - Only existing tracks will be utilised.

Domain 11 - Engineering workshop					
		- Topsoil (300 mm) to be removed should be stockpiled separately not exceeding a height of 2 m. - Overburden materials excavated should be stockpiled to a height not exceeding 20 m.			
	Heritage	All contractors and subcontractors must: - Avoid disturbing heritage object or resources (when unearthed). - The chance find procedure must be followed (refer to Section 5.5.5).			
Environmental pollution control measures (PCM)	Function and performance	Maintenance frequency			
	Used daily throughout the construction phase	Weekly/monthly maintenance as per planned maintenance schedule.			
Environmental monitoring program	Environmental monitoring				
	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
	Site code	Name	Monitoring purpose	Frequency	Threshold
	Air quality - Depositional dust monitoring	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	Monthly	600 mg/m ² /day
	B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	Quarterly	PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.

Domain 11 - Engineering workshop					
	Groundwater levels	Baseline groundwater monitoring network	Required to monitoring aquifer groundwater levels	Monthly	NA
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Noise	Monitoring points as determined by the specialist	To monitor noise impacts on the nearest receptors	Biannual	45 dB daytime 35 dB nighttime
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) – The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. – The Domain Manager must complete the weekly compliance checklist. – Report to the appointed ECO any incidents reported during the month involving flora, fauna or construction employees. – Any complaints received from the community (complaints should be recorded in the public grievance mechanism complaint register – see template in Appendix C). Appointed ECO to report back to the Domain Manager and Environmental Officer (monthly) – Advise on action items to be implemented to address complaints received from the community. – Report the level of compliance to the CEMP. – Provide monthly written reports on the environmental monitoring program.				

Domain 11 - Engineering workshop				
	Daily	Weekly	Monthly	Other
Environmental Inspection	Ascertain dust suppression requirement. Inspect for potential soil, surface and groundwater contamination.	Hydrocarbon spills and waste management	CEMP compliance audit.	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).
Supporting documents	Domain sign off (Appendix D), Spill Prevention and Management Plan, land clearing permit, water abstraction licence.			

Domain 12 - Administration area

Domain 12 - Administration area		
Domain manager	Security Manager	
Description	This domain comprises the site entrance and the main security building, the administration building, the parking lot, the personnel drop-off zone, the training centre and classroom, the canteen, the emergency response centre, the supply delivery holding bay, the core storage area and all associated infrastructure and yards. The total domain footprint is calculated to cover approximately 3.5 ha.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Water abstraction licence B. Accessory work permit C. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months).	A. Compliance with abstraction volumes as stipulated in the approved licence. B. Renewed every 5 years or when material change occurs. C. Compliance to the permit conditions and the permit shall be renewed every three months.
Potential issues or impacts	Groundwater – Soil and groundwater contamination from hydrocarbon spills from construction containers. – Groundwater abstraction for construction activities could potentially impact the water levels of neighbouring boreholes. Surface water – Potential for sediments runoff and erosion. – The use of chemicals (e.g. fuels, oils and lubricants) can leak or wash into surface waters.	

Domain 12 - Administration area	
Targets and reporting	Air quality – The potential for land clearing activities and site leveling to generate dust that could impact neighbouring communities. Noise – Noise impacts on employees. – Community severance and disruption of social interactions. Traffic – Potential traffic congestion as construction vehicles and delivery vehicles will likely interact in the domain during the construction phase. – Degradation of road surfaces caused by constant use and the impact of heavy vehicles. Social – Noise and dust nuisance to neighbours from construction activities. – Potential disruption of social interactions. – Social tension between different groups or individuals within the community and mine construction workers. Biodiversity – Potential risk of wildlife colliding with Project vehicles. – Loss of vegetation and habitat destruction due to land clearing activities. Visual – Disruption to the visual landscape and diminished sense of place. – The use of cranes and masts during the construction phase may result in visual nuisance as their substantial size and height can significantly alter the landscape. Heritage – Potential to unearth and disturb heritage objects or resources.
	Community – Zero un-resolved community complaints relating to dust or noise. ○ This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Soil, surface/groundwater contamination – Protect soils and preserve water resources by implementing measures to prevent contaminations. ○ This will be achieved through the timely management and reporting of contamination incidents. Roads – Enhance the efficiency and safety of road operations during construction activities.

Domain 12 - Administration area		
	○ This shall be achieved through appropriate road signs, clear signage, proper parking bay marking and use of warning systems that communicate potential hazards. Rehabilitation – Rehabilitate dis-used roads, burrows, trenches and tracks that are deemed uneconomical or viable for future use. ○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.	
To minimise the effects the above-mentioned impacts on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:		
Construction management measures	Site establishment	The Domain Manager shall: – Ensure the proper design of entry points to facilitate smooth interaction between personnel, construction vehicles, and delivery vehicles.
	Biodiversity	The on-site Environmental Officer shall: – Conduct a wildlife and endemic species search and rescue operations prior to the commencement of construction activities. – Ensure the land clearing permit is acquired from the Department of Forestry (DoF) prior to the commencement of land clearing activities. – Ensure that all equipment to be used for any earth moving activity (including and specifically those working on the river and road diversions) must be cleaned and free from soil, weed and seeds prior to being used on site. – Sign off all Method Statements prior to the commencement of construction work. The contractors and subcontractors must comply with the following conditions: – Limit construction activities to the designated domain footprint. – No pets are allowed on site. – Riparian vegetation along the Okawayo tributary and Khan River is to be preserved to the greatest extent possible. – All animals have the right of way. – Hunting and poaching are strictly prohibited. – Existing roads and tracks are to be used.

Domain 12 - Administration area		
		- Nighttime travelling is prohibited. - Incidents involving wildlife and staff, visitors and/or contractors to be immediately reported to the environmental department. - Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. - Burrows that are created without any further future purpose should be backfilled. - All incidents to be investigated and recorded as per the incident management procedure. - The collection of firewood is strictly prohibited. - Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible. - Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. - Any animal fatalities (e.g. ground burrowing animals killed during land excavation) must be reported immediately reported to the environmental department and the incident must be recorded, as per the incident management procedure.
	Air quality	The conditions are to be complied with by the contractors and subcontractors: - The construction team shall be issued with dust masks. - Minimise dust generated on-site by having basic control measures in place such as regulating the speed of excavators, bulldozers, graders and other road construction machinery. - Speed limit of 40 km/h for the site is to be adhered to. - To control dust, water sprays shall be applied to frequently used unpaved road sections and during road construction activities. - Any construction vehicle found to be emitting excessive smoke, such as thick, black or pungent exhaust fumes or displaying signs of significant hydrocarbon spillage must be immediately stopped from operating until it is determined to be mechanically sound and free of defects. - Trucks carrying loads should be covered, where possible. - A complaint register must be kept.

Domain 12 - Administration area		
		The following must be undertaken by the independent third-party (independent ECO) - Maintain the dust fallout monitoring program during the duration of construction activities. - Maintain the PM10/2.5 monitoring program throughout the construction phase. - Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Traffic	The contractors and subcontractors working in the domain shall ensure the following conditions are complied with: - Ensure that road signs are appropriately erected in the domain to indicate drop off points and parking bays. - The Khan River or Okawayo River should not be used as a general access route. - Construction vehicles and truck delivering equipment must adhere to the site speed limits established for the site (40 km/h). - Drivers (licenced) are expected to adhere to all traffic rules. - Roads to be maintained regularly, bi-weekly where surfaces are very active and prone to corrugation. - Use banksmen or spotter to assist private vehicles in accessing properties or coordinating the flow of traffic at intersections (site entry points). - A complaint register must be kept.
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: - Only approved ablution facilities to be utilised. - If additional ablution facilities are required, the DWA is to be informed. - No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. - Ablution facilities to be cleaned and maintained on a regular basis. - Effluent water is to be contained, and leakages are to be cleaned up within 24 hours of the incident occurring.

Domain 12 - Administration area		
		- Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. - No intractable or toxic waste should be allowed into the septic tanks. - If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. - No wastewater may be discharged into a river. The third-party ECO shall: - Conduct regular effluent water quality sampling (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: - Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. - Efforts must be made to recycle waste where possible. - Bins and skips must have lids, that can seal and are scavenger/baboon-proof. - All contractor waste is required to be disposed of off-site, but not in the host communities. - No fires will be allowed on-site, unless in approved designated areas (incinerators). - Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. - Scrap metal is to be collected in dedicated bunded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility. - A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. - The work areas are to be kept clean and maintained in a clean, orderly and presentable conditions always.

Domain 12 - Administration area		
	Noise	The following conditions are to be complied with by the contractors and subcontractors: – Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. – Pre-start checks to be conducted daily on equipment. – Ensure the best available machinery and equipment with low sound output is used. – Construction activities are to be conducted between dawn and dusk. – Employees to be issued with ear plugs. – Avoid unnecessary equipment always idling. – A complaint register must be kept. The third-party ECO must: – Maintain the noise monitoring program to assess the impacts of noise on receptors.
	Visual	Contractors and subcontractors must comply with the following conditions: – Machinery and equipment should only be kept on-site for the duration of the construction activities. – Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances.
	Water quality and Availability	The contractors and subcontractors must: – Ensure heavy delivery vehicles are kept in good mechanical condition to minimise noise associated with their operation and to prevent hydrocarbon spills. – To avoid stagnant water, drainage systems or water collection measures are to be in place to control sediments runoff during construction activities. – Ensure refuelling of equipment and machinery should be done in controlled, bunded areas following standard refuelling procedures. – Fuel bowsers are to have drip trays for each refuelling event and diesel storage tanks must be contained within

Domain 12 - Administration area		
		bund walls with a sufficient capacity (110%) contained volume. – Report any soil, surface water or groundwater contamination as per incident reporting procedure. – A complaint register must be kept. The third-party ECO must: – Maintain the groundwater quality monitoring program and reporting for the site throughout the construction phase.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: – Collection of soil or sand from the Khan or Okawayo River for construction purposes is strictly prohibited. – Only existing tracks will be utilised. – Topsoil (300 mm) to be removed should be stockpiled separately not exceeding a height of 2 m. – Overburden materials excavated should be stockpiled to a height not exceeding 20 m.
	Heritage	All contractors and subcontractors must: – Avoid disturbing heritage object or resources (when unearthed). – The chance find procedure must be followed (refer to Section 5.5.5).
Environmental pollution control measures (PCM)	Function and performance	Maintenance frequency
	To monitor early sign of soil, surface or groundwater contamination. Used daily to wet roads and stockpiles to reduce dust.	– Monthly maintenance as per planned maintenance schedule.
Environmental monitoring		

Domain 12 - Administration area					
Environmental monitoring program	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program must be conducted monthly by the contracted third-party company (independent ECO).				
	Site code	Name	Monitoring purpose	Frequency	Threshold
	Air quality - Depositional dust monitoring	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	Monthly	600 mg/m ² /day
	B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	Quarterly	PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	Groundwater levels	Baseline groundwater monitoring network	Required to monitoring aquifer groundwater levels	Monthly	NA
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Noise	Monitoring points as determined by the specialist	To monitor noise impacts on the nearest receptors	Biannual	45 dB daytime 35 dB nighttime

Domain 12 - Administration area					
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) - The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. - The Domain Manager must complete the weekly compliance checklist. - Report to the appointed ECO any incidents reported during the month involving flora, fauna or construction employees. - Any complaints received from the community (complaints should be recorded in the public grievance mechanism complaint register – see template in Appendix C). Appointed ECO to report back to the Domain Manager and Environmental Officer (monthly) - Advise on action items to be implemented to address complaints received from the community. - Report the level of compliance to the CEMP. - Provide monthly written reports on the environmental monitoring program. - Notify the Domain Manager if monitoring identifies high dust fallout values exceeding the threshold and the corrective actions to be implemented.				
	Environmental Inspection	Daily	Weekly	Monthly	Other
Dust suppression requirement Inspect for potential soil, surface and groundwater contamination		Hydrocarbon spills and waste management	CEMP compliance audit.	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).	
Supporting documents	Domain sign off (Appendix D), water abstraction licence, Spill Prevention and Management Plan, land clearing permit and Traffic Management Procedure.				

Domain 13 - Management camp

Domain 13 - Management camp		
Domain manager	Supply Manager	
Description	This domain comprises the management camp to accommodate contractors and Project-specific construction team during the operational phase. The domain includes all accommodation facilities associated infrastructure and yards. The total domain footprint is calculated to cover approximately 15 ha.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Water abstraction licence B. Accessory work permit C. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months).	A. Compliance with abstraction volumes as stipulated in the approved licence. B. Renewed every 5 years or when material change occurs. C. Compliance to the permit conditions and the permit shall be renewed every three months.
Potential issues or impacts	Groundwater – Soil and groundwater contamination from hydrocarbon spills from construction containers. – Groundwater abstraction for construction activities could potentially impact the water levels of neighbouring boreholes. Surface water – Potential for sediments runoff and erosion. – The use of chemicals (e.g. fuels, oils and lubricants) can leak or wash into surface waters. Air quality	

Domain 13 - Management camp	
	– The potential for land clearing activities and site leveling to generate dust that could impact neighbouring communities. Noise – Noise impacts on employees. – Community severance and disruption of social interactions. Traffic – Alteration of traffic flow on the C33 road during deliveries of construction materials. Social – Noise and dust nuisance to neighbours from construction activities. – Potential disruption of social interactions. – Social tension between different groups or individuals within the community and mine construction workers. Biodiversity – Potential for birds to collide with construction equipment. – Potential risk of wildlife colliding with Project vehicles. – Loss of vegetation and habitat destruction due to land clearing activities. Visual – Disruption to the visual landscape and diminished sense of place. – Loss of sense of place due to the generation and improper disposal of construction waste. Heritage – Potential to unearth and disturb heritage objects or resources.
Targets and reporting	Community – Zero un-resolved community complaints relating to dust or noise. ○ This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Soil, surface/groundwater contamination – Protect soils and preserve water resources by implementing measures to prevent contaminations. ○ This will be achieved through the timely management and reporting of contamination incidents. Roads – Enhance the efficiency and safety of road operations during construction activities. ○ This shall be achieved through appropriate road signs, clear signage, proper lane marking, use of warning systems that communicate potential hazards and compliance to established traffic rules.

Domain 13 - Management camp		
	Rehabilitation - Rehabilitate dis-used roads, burrows, trenches and tracks that are deemed uneconomical or viable for future use. - This shall be achieved through third party monitoring, regular compliance auditing and reporting.	
To minimise the effects the above-mentioned impacts on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:		
Construction management measures	Site establishment	The contractors and subcontractors must: Ensure the construction of facilities that include domestic waste disposal areas, ablution facilities, filtered potable water, changing rooms, and any other amenities that address basic human needs.
	Biodiversity	The on-site Environmental Officer shall: - Ensure the land clearing permit is acquired from the Department of Forestry (DoF) prior to the commencement of land clearing activities. - Conduct a wildlife and endemic species search and rescue operations prior to the commencement of construction activities. - Ensure that all equipment to be used for any earth moving activity (including and specifically those working on the river and road diversions) must be cleaned and free from soil, weed and seeds prior to being used on site. - Sign off all Method Statements prior to the commencement of construction work. The contractors and subcontractors must comply with the following conditions: - Limit construction activities to the designated domain footprint. - All animals have the right of way. - Hunting and poaching are strictly prohibited. - Existing roads and tracks are to be used. - Nighttime travelling is prohibited.

Domain 13 - Management camp		
		- Incidents involving wildlife and staff, visitors and/or contractors to be immediately reported to the environmental department. - Burrows or trenches that are created without any further future purpose should be backfilled. - All incidents to be investigated and recorded as per the incident management procedure. - The collection of firewood is strictly prohibited. - Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible. - Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. - Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. - Any animal fatalities (e.g. ground burrowing animals killed during land excavation) must be reported immediately reported to the environmental department and the incident must be recorded, as per the incident management procedure.
	Air quality	The conditions are to be complied with by the contractors and subcontractors: - The construction team shall be issued with dust masks. - Minimise dust generated on-site by having basic control measures in place such as regulating the speed of excavators, bulldozers, graders and other road construction machinery. - Speed limit of 40 km/h for the site is to be adhered to. - To control dust, water sprays shall be applied to frequently used unpaved road sections and during road construction activities. - Any construction vehicle found to be emitting excessive smoke, such as thick, black or pungent exhaust fumes or displaying signs of significant hydrocarbon spillage must be immediately stopped from operating until it is determined to be mechanically sound and free of defects. - Trucks carrying loads should be covered, where possible. - A complaint register must be kept.

Domain 13 - Management camp		
		The following must be undertaken by the independent third-party (independent ECO) – Maintain the dust fallout monitoring program during the duration of construction activities. – Maintain the PM10/2.5 monitoring program throughout the construction phase. – Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Traffic	The contractors and subcontractors working in the domain shall ensure the following conditions are complied with: – The Khan River or Okawayo River should not be used as a general access route. – Drivers (licenced) are expected to adhere to all traffic rules. – Construction vehicles and truck delivering equipment must adhere to the site speed limits established for the site (40 km/h). – Use banksmen or spotter to assist private vehicles in accessing properties or coordinating the flow of traffic at intersections (site entry points). – A complaint register must be kept.
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: – Only approved ablution facilities to be utilised. – If additional ablution facilities are required, the DWA is to be informed. – No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. – Ablution facilities to be cleaned and maintained on a regular basis. – Effluent water is to be contained and leakages are to be cleaned up within 24 hours of the incident occurring. – Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. – No intractable or toxic waste should be allowed into the septic tanks.

Domain 13 - Management camp		
		- If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. - No wastewater may be discharged into a river. The third-party ECO shall: - Conduct regular effluent water quality sampling (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: - Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. - Efforts must be made to recycle waste where possible. - Bins and skips must have lids, that can seal and are scavenger/baboon-proof. - All contractor waste is required to be disposed of off-site, but not in the host communities. - No fires will be allowed on-site, unless in approved designated areas (incinerators). - Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. - Scrap metal is to be collected in dedicated bunded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility. - A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. - The work areas are to be kept clean and maintained in a clean, orderly and presentable conditions always.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: - Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. - Pre-start checks to be conducted daily on equipment.

Domain 13 - Management camp		
		– Ensure the best available machinery and equipment with low sound output is used. – Construction activities are to be conducted between dawn and dusk. – Employees to be issued with ear plugs. – Avoid unnecessary equipment always idling. – Equipment, vehicles and heavy mining equipment (HME) to be serviced and maintained regularly. – A complaint register must be kept. The third-party ECO must: – Maintain the noise monitoring program to assess the impacts of noise on receptors.
	Visual	Contractors and subcontractors must comply with the following conditions: – Machinery and equipment should only be kept on-site for the duration of the construction activities. – Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances.
	Water quality and Availability	The contractors and subcontractors must: – Ensure heavy delivery vehicles are kept in good mechanical condition to minimise noise associated with their operation and to prevent hydrocarbon spills. – Ensure refuelling of equipment and machinery should be done in controlled, bunded areas following standard refuelling procedures. – Fuel bowzers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume. – Report any soil, surface water or groundwater contamination as per incident reporting procedure. – A complaint register must be kept. The third-party ECO must:

Domain 13 - Management camp		
		Maintain the groundwater monitoring program and reporting for the site throughout the construction phase.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: - Collection of soil or sand from the Khan or Okawayo River for construction purposes is strictly prohibited. - Only existing tracks will be utilised. - Topsoil (300 mm) to be removed should be stockpiled separately not exceeding a height of 2 m. - Overburden materials excavated should be stockpiled to a height not exceeding 20 m.
	Heritage	All contractors and subcontractors must: - Avoid disturbing heritage object or resources (when unearthed). - The chance find procedure must be followed (refer to Section 5.5.5).
Environmental pollution control measures (PCM)	Function and performance	Maintenance frequency
	To monitor early sign of soil, surface or groundwater contamination. Used daily to wet roads and stockpiles to reduce dust. Used daily to manage the storage, handling of hydrocarbons and spill response kits.	Monthly maintenance as per planned maintenance schedule.
	Environmental monitoring	

Domain 13 - Management camp					
Environmental monitoring program	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
	Site code	Name	Monitoring purpose	Frequency	Threshold
	Air quality - Depositional dust monitoring	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	Monthly	600 mg/m ² /day
	B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	Quarterly	PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	Groundwater levels	Baseline groundwater monitoring network	Required to monitoring aquifer groundwater levels	Monthly	NA
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Noise	Monitoring points as determined by the specialist	To monitor noise impacts on the nearest receptors	Biannual	45 dB daytime 35 dB nighttime

Domain 13 - Management camp					
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) - The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. - The Domain Manager must complete the weekly compliance checklist. - Report to the appointed ECO any incidents reported during the month involving flora, fauna or construction employees. - Any complaints received from the community. Appointed ECO to report back to Domain Manager and Environmental Officer (monthly) - Advise on action items to be implemented to address complaints received from the community. - Report the level of compliance to the CEMP. - Provide monthly written reports on the environmental monitoring program.				
	Environmental Inspection	Daily	Weekly	Monthly	Other
Dust suppression requirement Inspect for potential soil, surface and groundwater contamination		Hydrocarbon spills and waste management	CEMP compliance audit.	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).	
Supporting documents	Domain sign off (Appendix D), water abstraction licence, Spill Prevention and Management Plan and land clearing permit.				

Domain 14 - Non-mineralised waste (solid waste)

Domain 14 - Non-mineralised waste (solid waste)		
Domain manager	Environmental Manager	
Description	This is the main waste disposal site. This domain comprises the non-hazardous landfill, sorting and recycling area and incinerator. The landfill area will cover approximately 25 ha.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Water abstraction licence	A. Compliance with abstraction volumes as stipulated in the approved licence. B. Renewed every 5 years or when material change occurs.
	B. Accessory work permit	C. Compliance to the permit conditions and the permit shall be renewed every three months.
	C. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months).	D. The storage, handling and treatment of waste is a listed activity in terms of the EMA. The certificate authorises for the landfill construction is required for the construction, handling, disposal and treatment of waste.
	D. Environmental clearance certificate	
Potential issues or impacts	Groundwater – Soil and groundwater contamination from hydrocarbon spills from construction containers. – Groundwater abstraction for construction activities (dust suppression, soil compaction, concrete foundation etc) could potentially impact the water levels of neighbouring boreholes. Surface water	

Domain 14 - Non-mineralised waste (solid waste)	
	– Potential for sediments runoff and erosion. – The use of chemicals (e.g. fuels, oils and lubricants) can leak or wash into surface waters. Air quality – Dust generated from land clearing, use of excavators, bulldozer's activities could disperse and affect neighbouring communities. Noise – Noise impacts on employees. – Community severance and disruption of social interactions. Social – Noise and dust nuisance to neighbours from construction activities. – Potential disruption of social interactions. – Social tension between different groups or individuals within the community and mine construction workers. Biodiversity – Loss of vegetation due to land clearing activities. – Loss of habitats and potential wildlife displacement. Visual – Disruption to the visual landscape and diminished sense of place due to the presence of cranes and other tall infrastructure during the construction phase. – Loss of sense of place due to the generation and improper disposal of construction waste. Heritage – Potential to unearth and disturb heritage objects or resources.
Targets and reporting	Community – Zero un-resolved community complaints relating to dust or noise. ○ This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Soil, surface/groundwater contamination – Protect soils and preserve water resources by implementing measures to prevent contaminations. ○ This will be achieved through the timely management and reporting of contamination incidents. Rehabilitation – Rehabilitate dis-used roads, burrows and tracks that are deemed uneconomical or viable for future use.

Domain 14 - Non-mineralised waste (solid waste)		
		○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.
To minimise the effects the above-mentioned impacts on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:		
Construction management measures	Design requirement(s)	The minimum requirements for the non-hazardous waste facilities are as follows: - The design of the non-hazardous waste site should incorporate a liner system to mitigate the risk of contamination to the surrounding environment, with particular emphasis on protecting groundwater resources (good practice and precautionary approach). - Install a security fence to prevent unauthorized access by people and animals. - Measures should be in place to prevent waste from being windblown. - Any other technical requirements as may be determined by the geotechnical engineers.
	Biodiversity	The on-site Environmental Officer shall: - Conduct a wildlife and endemic species search and rescue operations prior to the commencement of construction activities. - Ensure the land clearing permit is acquired from the Department of Forestry (DoF) prior to the commencement of land clearing activities. - Ensure that all equipment to be used for any earth moving activity (including and specifically those working on the river and road diversions) must be cleaned and free from soil, weed and seeds prior to being used on site. - Sign off all Method Statements prior to the commencement of construction work. The contractors and subcontractors must comply with the following conditions: - Limit construction activities to the designated domain footprint. - No pets are allowed on site. - Riparian vegetation along the Okawayo tributary and Khan River is to be preserved to the greatest extent possible.

Domain 14 - Non-mineralised waste (solid waste)		
		- All animals have the right of way. - Hunting and poaching are strictly prohibited. - Existing roads and tracks are to be used. - Nighttime travelling is prohibited. - Incidents involving wildlife and staff, visitors and/or contractors to be immediately reported to the environmental department. - Burrows or trenches that are created without any further future purpose should be backfilled. - All incidents to be investigated and recorded as per the incident management procedure. - The collection of firewood is strictly prohibited. - Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible. - Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. - Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. - Any animal fatalities (e.g. ground burrowing animals killed during land excavation) must be reported immediately reported to the environmental department and the incident must be recorded, as per the incident management procedure.
	Air quality	The conditions are to be complied with by the contractors and subcontractors: - A phased land clearing approach should be implemented to minimize the generation of dust from extensive cleared areas. - The construction team shall be issued with dust masks. - Minimise dust generated on-site by having basic control measures in place such as regulating the speed of excavators, bulldozers, graders and other road construction machinery. - Speed limit of 40 km/h for the site is to be adhered to. - To control dust, water sprays shall be applied to frequently used unpaved road sections and during road construction activities.

Domain 14 - Non-mineralised waste (solid waste)		
		- Any construction vehicle found to be emitting excessive smoke, such as thick, black or pungent exhaust fumes or displaying signs of significant hydrocarbon spillage must be immediately stopped from operating until it is determined to be mechanically sound and free of defects. - Trucks carrying loads should be covered, where possible. - A complaint register must be kept. The following must be undertaken by the independent third-party (independent ECO) - Maintain the dust fallout monitoring program during the duration of construction activities. - Maintain the PM10/2.5 monitoring program throughout the construction phase. - Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Domestic effluent management	All contractors and subcontractors within the domain must comply with the following conditions: - Only approved ablution facilities to be utilised. - If additional ablution facilities are required, the DWA is to be informed. - No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. - Ablution facilities to be cleaned and maintained on a regular basis. - Effluent water is to be contained, and leakages are to be cleaned up within 24 hours of the incident occurring. - Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. - No intractable or toxic waste should be allowed into the septic tanks. - If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. - No wastewater may be discharged into a river. The third-party ECO shall:

Domain 14 - Non-mineralised waste (solid waste)		
		- Conduct regular effluent water quality sampling (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and construction waste)	All contractors and subcontractors must comply with the following waste management measures: - Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. - Efforts must be made to recycle waste where possible. - Bins and skips must have lids, that can seal and are scavenger/baboon-proof. - All contractor waste is required to be disposed of off-site, but not in the host communities. - No fires will be allowed on-site, unless in approved designated areas (incinerators). - Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. - Scrap metal is to be collected in dedicated bunded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and disposed of at a suitable registered hazardous waste facility. - A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. - The work areas are to be kept clean and maintained in a clean, orderly and presentable conditions always.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: - Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. - Pre-start checks to be conducted daily on equipment. - Ensure the best available machinery and equipment with low sound output is used. - Construction activities are to be conducted between dawn and dusk. - Employees to be issued with ear plugs. - Avoid unnecessary equipment always idling. - A complaint register must be kept.

Domain 14 - Non-mineralised waste (solid waste)		
		The third-party ECO must: - Maintain the noise monitoring program to assess the impacts of noise on receptors.
	Visual	Contractors and subcontractors must comply with the following conditions: - Machinery and equipment should only be kept on-site for the duration of the construction activities. - Good housekeeping. This includes ensuring that tools, equipment, and materials are properly stored and easily accessible, as well as regularly cleaning work areas to prevent the accumulation of waste, debris, and hazardous substances. - Keep topsoil and overburden stockpiles within the recommended height limits.
	Water quality and Availability	The contractors and subcontractors must: - Ensure heavy delivery vehicles are kept in good mechanical condition to minimise noise associated with their operation and to prevent hydrocarbon spills. - Ensure refuelling of equipment and machinery should be done in controlled, bunded areas following standard refuelling procedures. - Fuel bowsers are to have drip trays for each refuelling event and diesel storage tanks must be contained within bund walls with a sufficient capacity (110%) contained volume. - Report any soil, surface water or groundwater contamination as per incident reporting procedure. - A complaint register must be kept. The third-party ECO must:

Domain 14 - Non-mineralised waste (solid waste)		
		Maintain the groundwater quality monitoring program and reporting for the site throughout the construction phase.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: - Collection of soil or sand from the Khan or Okawayo River for any construction purpose is strictly prohibited. - Only existing tracks will be utilised. - Topsoil (300 mm) to be removed should be stockpiled separately not exceeding a height of 2 m. - Overburden materials excavated should be stockpiled to a height not exceeding 20 m.
	Heritage	All contractors and subcontractors must: - Avoid disturbing heritage object or resources (when unearthed). - The chance find procedure must be followed (refer to Section 5.5.5).
Environmental pollution control measures (PCM)	Function and performance	Maintenance frequency
	To monitor early sign of soil, surface or groundwater contamination. Used daily to wet roads and stockpiles to reduce dust. Used daily to manage the storage, handling of hydrocarbons and spill response kits.	Monthly maintenance as per planned maintenance schedule.
	Environmental monitoring	

Domain 14 - Non-mineralised waste (solid waste)					
Environmental monitoring program	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
	Site code	Name	Monitoring purpose	Frequency	Threshold
	Air quality - Depositional dust monitoring	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	Monthly	600 mg/m ² /day
	B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	Quarterly	PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	Groundwater levels	Baseline groundwater monitoring network	Required to monitoring aquifer groundwater levels	Monthly	NA
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Noise	Monitoring points as determined by the specialist	To monitor noise impacts on the nearest receptors	Biannual	45 dB daytime 35 dB nighttime

Domain 14 - Non-mineralised waste (solid waste)					
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) - The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. - Report to the appointed ECO any incidents reported during the month involving flora, fauna or construction employees. - Any complaints received from the community. Appointed ECO to report back to the Domain Manager (monthly) - Advise on action items to be implemented to address complaints received from the community. - Report the level of compliance to the CEMP. - Provide monthly written reports on the environmental monitoring program.				
	Environmental Inspection	Daily	Weekly	Monthly	Other
Ascertain dust suppression requirement Inspect for potential soil, surface and groundwater contamination		Hydrocarbon spills and waste management	CEMP compliance audit.	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).	
Supporting documents	Domain sign off (Appendix D), water abstraction licence, Spill Prevention and Management Plan and land clearing permit.				

Domain 15 – Topsoil stockpile

Domain 15 – Topsoil stockpile		
Domain manager	Environmental Manager	
Description	This domain includes the topsoil stockpiles and the revegetation material stockpile and all associated activities and structures. Topsoil will be stripped to a depth of 300 mm and paddock dumped in piles not higher than 2 m. The stockpiles will be strategically positioned so that they are suitable for rehabilitation and not subject to erosion. It is expected that a total volume of 1 045 512 m ³ of material will be stockpiled as topsoil, with a footprint of 25 ha.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Accessory work permit B. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months).	A. Renewed every 5 years or when material change occurs. B. Compliance to the permit conditions and the permit shall be renewed every three months.
Potential issues or impacts	Air quality - Dust generated from land clearing, stockpiling activities could disperse and affect neighbouring communities. Biodiversity - Loss of vegetation due to land clearing activities. - Loss of habitats and potential wildlife displacement. Noise - Noise nuisance to neighbours from stockpiling activities. Soil - Potential risk of soil erosion and sediments runoff. Visual - Visual nuisance due to the altered landscape due to ongoing stockpiling activities.	
Targets	Community - Zero un-resolved community complaints relating to dust or noise. - This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Rehabilitation	

Domain 15 – Topsoil stockpile		
	- Engage in appropriate management of stockpiles and materials to be used during the rehabilitation process. - This shall be achieved through third party monitoring, regular compliance auditing and reporting.	
To minimise the effects the above-mentioned impacts may have on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:		
Construction management measures	Site layout	Contractors and subcontractors shall ensure: Appropriate stacking of stockpiles (300 mm) must not exceed a height of 2 m.
	Air quality	The following conditions are to be complied with by the contractors and subcontractors: - A phased land clearing approach should be implemented to minimize the generation of dust from extensive cleared areas. - Dust masks to be issued to the construction workforce. - Dust suppression on surface haul roads leading to and from the stockpile yard when excessive dust is generated. - Trucks delivering stockpiles must adhere to the site speed limits established for the site (40 km/h). - Trucks carrying excavated loads should be covered, where possible to avoid windblown dust. - A complaint register must be kept. The following must be undertaken by the independent third-party (independent ECO) - Maintain the dust fallout monitoring program to monitor the effects and extent of dust dispersion from stockpiling activities. - Maintain the PM10/2.5 monitoring program throughout the construction phase. - Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.

Domain 15 – Topsoil stockpile

	Biodiversity	The on-site Environmental Officer shall: – Ensure the land clearing permit, which authorises for the removal of vegetation and protected trees remains valid throughout the duration of the land clearing activities in the domain. – Conduct a wildlife and endemic species search and rescue operation prior to the commencement of construction activities. – Ensure all equipment intended for stockpiling activities must be thoroughly cleaned and inspected for weeds and seeds before being used on site. The contractors and subcontractors must comply with the following conditions: – Limit activities to the area designated for stockpiling within the domain. – All animals have the right of way. – No pets are allowed on site. – Existing roads and tracks are to be used. – Incidents involving wildlife and staff, visitors and/or contractors to be immediately reported to the environmental department. – Nighttime travelling is prohibited. – The collection of firewood is strictly prohibited. – Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible. – Hunting and poaching are strictly prohibited – Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. – Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. – Any animal fatalities (e.g. ground burrowing animals killed during land excavation) must be reported immediately reported to the environmental department and the incident
--	--------------	--

Domain 15 – Topsoil stockpile		
		must be recorded, as per the incident management procedure.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: – Only existing tracks will be utilised. – Topsoil (300 mm) should be stockpiled to a height not exceeding 2 m. – Overburden materials excavated should be stockpiled to a height not exceeding 20 m. – Erosion/sediments run off should be controlled especially on stockpiles intended for longer periods.
	Noise	The following conditions are to be complied with by the contractors and subcontractors: – Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. – Pre-start checks to be conducted daily on equipment. – Conduct stockpiling activities between dawn and dusk. – Employees to be issued with ear plugs. – Avoid unnecessary equipment always idling. – A noise complaints register must be kept, and noise complaints should be addressed in line with the complaint management procedures. The third-party ECO must: – Maintain the noise monitoring program to assess the impacts of noise on receptors.
	Visual	All contractors and subcontractors must: – Keep topsoil stockpiles within the recommended height limits (i.e. 2 m).
Environmental pollution control	Function and performance	
	Maintenance frequency	
	To monitor early sign of soil erosion	Monthly maintenance as per planned maintenance schedule.

Domain 15 – Topsoil stockpile					
measures (PCM)	Used daily to wet roads and stockpiles to reduce dust.				
	Environmental monitoring				
	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
Environmental monitoring	Site code	Name	Monitoring purpose	Frequency	Threshold
	Noise – ambient noise	Noise monitoring network as determined by the specialist	Impact of Project-related noise on sensitive receptors	Biannual	45 dB daytime 35 dB nighttime
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	Groundwater levels	Baseline groundwater monitoring network	Required to monitoring aquifer groundwater levels	Monthly	NA
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater	Quarterly	As per permit conditions

Domain 15 – Topsoil stockpile					
			quality for the site		
	A. Depositional dust fallout monitoring B. PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	A. Monthly B. Quarterly	A. 600 mg/m ² /day B. PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) - The Domain Manager shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. - Report monthly water used in the domain to the appointed ECO. - Report any incidents reported during the month involving flora, fauna or construction employees. - Any complaints received from the community and any actions undertaken to address the complaint. Appointed ECO to report back to the Domain Manager (monthly) - Report on the level of compliance with the requirements of the CEMP. - Provide monthly written reports on the environmental monitoring program. - Advise on action items to be implemented to address complaints received from the community (if not initially resolved/addressed). - Notify the Domain Manager if monitoring identifies high dust fallout values exceeding the threshold and the corrective actions to be implemented.				
Environmental inspection/s	Daily	Weekly	Monthly	Other	
	Dust suppression requirement Inspect for potential soil erosion and	Erosion and sediments runoff	CEMP compliance audit.	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).	

Domain 15 – Topsoil stockpile				
-------------------------------	--	--	--	--

	sediment runoffs			
--	---------------------	--	--	--

Domain 16 - Freshwater supply – production and monitoring boreholes

Domain 16 - Freshwater supply – production and monitoring boreholes		
Domain manager	Technical Services Manager	
Description	This domain consists of the freshwater supply and associated infrastructure, including abstraction boreholes, dewatering boreholes, monitoring boreholes, water tanks and reservoirs.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Water abstraction licence	A. Compliance with abstraction volumes as stipulated in the approved licence.
Potential issues or impacts	Groundwater – Bulk groundwater abstraction for various construction activities could potentially impact the water levels of neighbouring boreholes. – Potential contamination of groundwater by other factors such as hydrocarbon spills. Surface water – Potential for sediments runoff and erosion due to burst pipes and stagnant water. Noise – Potential noise disturbance to neighbours, primarily during pump testing activities. Social – Community complaints regarding reduced or depleted water levels across the network of boreholes in the project area.	
Targets and reporting	Community – Zero un-resolved community complaints relating to lowered water levels in the broader Project area. ○ This is to be achieved through ongoing engagement with the farming community in the Project area. ○ Promptly addressing community complaints through the established complaint management protocols and procedures. Soil, surface/groundwater resources – Protect soils and preserve water resources by implementing measures to sustainably utilise these resources. ○ This will be achieved through the timely managed water abstraction and implementing environmental best practices. Sustainable water use – To comply with all abstraction rates as per the abstraction licences.	

Domain 16 - Freshwater supply – production and monitoring boreholes		
		○ This shall be achieved through third party monitoring, regular compliance auditing and reporting.
To minimise the effects the above-mentioned impacts on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:		
Construction management measures	Water-wise approach	The Domain Manager and Environmental Officer shall ensure that: – The water abstraction licence must be valid throughout the construction phase of the Project. – Ensure that water abstraction is undertaken only from the authorised boreholes. – Adherence to the abstraction volumes as stipulated under the water abstraction licence. – The water use hierarchy – reuse water, where possible (e.g. dewatered water can be used for dust suppression) is enforced across all work areas (domains). – Pipes, valves, water tanks and reservoirs should be inspected daily and weekly for leakages. – Pipe leakages are to be promptly addressed and repaired without delay. – Flowmeters shall be inspected weekly for malfunctions, and any leaking taps must be promptly repaired. – Track water consumption (i.e. record abstraction volumes weekly).
	Aquifer Performance monitoring	The Domain Manager and Environmental Officer must: – Record dynamic and static water levels (weekly) of boreholes monthly to monitor the water resource availability versus the Project water requirements. – Record flowmeter readings of all abstraction boreholes. – Ensure that early warning signs identified through data trend analysis should trigger immediate attention, and alternative boreholes must be considered to alleviate pressure on frequently abstracted boreholes. – Enhance positive working relations with the farming community by providing them with the groundwater monitoring data, trend analysis and interpretations. – A complaint register must be kept.

Domain 16 - Freshwater supply – production and monitoring boreholes					
		The independent ECO must: – Record dynamic and static water levels (monthly) of boreholes monthly to monitor the water resource availability versus the Project water requirements. – Conduct monthly sampling of all potable water sources for quality testing. – Conduct quarterly sampling of all groundwater boreholes (maintain the groundwater quality monitoring program).			
	Noise	The contractors and subcontractors must: – Prior to conducting test pumping activities in the vicinity of residential areas, notify the landowners in advance of the scheduled program. – A complaint register must be kept.			
Environmental pollution control measures (PCM)	Function and performance	Maintenance frequency			
	To detect early significant impacts on the water resource.	NA			
Environmental monitoring program	Environmental monitoring				
	Weekly monitoring: The Domain Manager must conduct weekly inspections across the borehole monitoring network, pipes and water reservoir tanks.				
	Monthly monitoring: The groundwater monitoring program and compliance audit shall be undertaken monthly by the contracted third-party company (independent ECO).				
	Site code	Name	Monitoring purpose	Frequency	Threshold
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	Groundwater levels	Baseline groundwater monitoring network	Required to monitoring aquifer groundwater levels	Monthly	NA

Domain 16 - Freshwater supply – production and monitoring boreholes					
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Noise	Monitoring points as determined by the specialist	To monitor noise impacts on the nearest receptors	Biannual	45 dB daytime 35 dB nighttime
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) - The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. - The Domain Manager must complete the weekly compliance checklist. - Report monthly abstraction volumes or water use to the appointed ECO. - Report any hydrocarbon spills, contamination of soil, surface or groundwater resources. - Any complaints received from the community. Appointed ECO to report back to Domain Manager and Environmental Officer (monthly) - Advise on action items to be implemented to address complaints received from the community. - Report the level of compliance to the CEMP. - Provide monthly written reports on the environmental monitoring program, including the groundwater monitoring program.				
Environmental Inspection	Daily	Weekly	Monthly	Other	
	Check for water leaks and potential	Inspect for water Leaks or	CEMP compliance audit.	Biannual compliance audit and reporting to DEA (as required in the	

Domain 16 - Freshwater supply – production and monitoring boreholes				
	contamination of surface water	breakages of pipes.		approved ESMP for the Project).
Supporting documents	Domain sign off (Appendix D) and water abstraction licence			

Domain 17 – Contractor’s laydown area

Domain 17 - Contractor’s area		
Domain manager	Technical Service Manager	
Description	This domain comprises the laydown areas of the contractors and all associated infrastructure and yards. The total footprint of the domain is calculated to be 1.65 ha.	
Statutory requirements	Permit / Permit name	Environmental permit conditions
	A. Accessory work permit B. Land clearing permit from the Ministry of Agriculture, Water and Land Reform (MAWLR) (only valid for 3 months).	A. Renewed every 5 years or when material change occurs. B. Compliance to the permit conditions and the permit shall be renewed every three months.
Potential issues or impacts	Groundwater – Soil and groundwater contamination from hydrocarbon spills from construction containers (e.g. used oil, fuel and grease). Visual – Improper storage arrangements within the domain may result in a visual nuisance. – Uncleaned hydrocarbon spills can lead to a loss of sense of place. Surface water – Potential for sediments runoff and erosion. – The use of chemicals (e.g. fuels, oils and lubricants) can leak or wash into surface waters. Air quality – The potential for land clearing activities and site leveling to generate dust that could impact neighbouring communities. Noise – Noise impacts on employees. – Community severance and disruption of social interactions. Social – Noise and dust nuisance to neighbours from construction activities.	

Domain 17 - Contractor's area		
	- Potential disruption of social interactions. - Social tension between different groups or individuals within the community and mine construction workers. Biodiversity - Loss of vegetation and habitat destruction due to land clearing activities. - Land clearing activities may lead to loss of habitats and potential wildlife displacement. - Small mammals may seek shelter in the stacked materials. Heritage - Potential to unearth and disturb heritage objects or resources.	
Targets and reporting	Community - Zero un-resolved community complaints relating to dust or noise. - o This is to be achieved through recording, managing and addressing community complaints as per the established grievance mechanisms. Soil, surface/groundwater contamination - Protect soils and preserve water resources by implementing measures to prevent contaminations. - o This will be achieved through the timely management and reporting of contamination incidents. Rehabilitation - Rehabilitate dis-used roads, burrows, trenches and tracks that are deemed uneconomical or viable for future use. - o This shall be achieved through third party monitoring, regular compliance auditing and reporting.	
To minimise the effects the above-mentioned impacts on the environment and community, the contractors and their respective subcontractors shall ensure that their Method Statements make provision for the following measures:		
Construction management measures	Site establishments	The Domain Manager shall ensure the following are in place: - Impermeable storage and bund areas are constructed to store used oil drum and containers. - A security fence is erected to prevent unauthorised access by people and animals. - Spill response amenities to promptly and effectively manage spills and contaminations.

Domain 17 - Contractor's area		
	Biodiversity	The on-site Environmental Officer shall: - Conduct a wildlife and endemic species search and rescue operations prior to the commencement of construction activities. - Ensure the land clearing permit is acquired from the Department of Forestry (DoF) prior to the commencement of land clearing activities. - Ensure that all equipment to be used for any earth moving activity (including and specifically those working on the river and road diversions) must be cleaned and free from soil, weed and seeds prior to being used on site. - Sign off all Method Statements prior to the commencement of construction work. The contractors and subcontractors must comply with the following conditions: - Limit construction activities to the designated domain footprint. - No pets are allowed on site. - All animals have the right of way. - Hunting and poaching are strictly prohibited. - Existing roads and tracks are to be used. - Nighttime travelling is prohibited. - The collection of firewood is strictly prohibited. - Bird habitats (e.g. raptor nests) should be preserved to the greatest extent possible. - Wild animals, when encountered on site (e.g. baboons) require specific management and should not be fed. - Incidents involving wildlife and staff, visitors and/or contractors to be immediately reported to the environmental department. - Snakes should be safely captured, removed from site and relocated to areas outside the Project footprint. In the event that a snake is found within the construction area, contact the Environmental Officer for removal. - Any animal fatalities (e.g. ground burrowing animals killed during land excavation) must be reported immediately reported to the environmental department and the incident must be recorded, as per the incident management procedure.

Domain 17 - Contractor's area		
	Air quality	The conditions are to be complied with by the contractors and subcontractors: - The construction team shall be issued with dust masks. - Minimise dust generated on-site by having basic control measures in place such as regulating the speed of excavators, bulldozers, graders and other road construction machinery. - Speed limit of 40 km/h for the site is to be adhered to. - To control dust, water sprays shall be applied to frequently used unpaved road sections and during road construction activities. - Any construction vehicle found to be emitting excessive smoke, such as thick, black or pungent exhaust fumes or displaying signs of significant hydrocarbon spillage must be immediately stopped from operating until it is determined to be mechanically sound and free of defects. - Trucks carrying loads should be covered, where possible. - A complaint register must be kept. The following must be undertaken by the independent third-party (independent ECO) - Maintain the dust fallout monitoring program during the duration of construction activities. - Maintain the PM10/2.5 monitoring program throughout the construction phase. - Where results from the monitoring campaign warrant it, consider precautionary measures such as dust suppression to mitigate dust levels.
	Soil management	All contractors and subcontractors undertaking earthwork activities must comply with the following conditions: - Collection of soil or sand from the Khan or Okawayo River for construction purposes is strictly prohibited. - Only existing tracks will be utilised. - Topsoil (300 mm) to be removed should be stockpiled separately not exceeding a height of 2 m. - Overburden materials excavated should be stockpiled to a height not exceeding 20 m.
	Domestic Effluent	All contractors and subcontractors within the domain must comply with the following conditions:

Domain 17 - Contractor's area		
	Management	- Only approved ablution facilities to be utilised. - If additional ablution facilities are required, the DWA is to be informed. - No employee or contractor on site may relieve himself or herself in the surrounding environment or work area. - Ablution facilities to be cleaned and maintained on a regular basis. - Effluent water is to be contained and leakages are to be cleaned up within 24 hours of the incident occurring. - Septic tanks to be inspected regularly and pumped out to avoid overflows. The effluent from the septic tank must be disposed of at the sewage disposal site in Karibib. - No intractable or toxic waste should be allowed into the septic tanks. - If the use of the septic tank is discontinued the tank is to be filled up with soil or other suitable material or as the site engineer directs or permits. - No wastewater may be discharged into a river. The third-party ECO shall: Conduct regular effluent water quality sampling (on a quarterly schedule as per the monitoring program).
	Waste management (domestic and Construction waste)	All contractors and subcontractors must comply with the following waste management measures: - Litter generated during construction activities must be collected in plastic bags and/or stored directly in the waste receptors provided. - Efforts must be made to recycle waste where possible. - Bins and skips must have lids, that can seal and are scavenger/baboon-proof. - All contractor waste is required to be disposed of off-site, but not in the host communities. - No fires will be allowed on-site, unless in approved designated areas (incinerators). - Domestic waste shall be disposed of weekly at the non-mineralised waste site/waste handling facility. - Scrap metal is to be collected in dedicated bunded areas. - Hazardous waste such as empty containers, hydraulic pipes, oil filters (etc.) should be removed from the site and

Domain 17 - Contractor's area		
		disposed of at a suitable registered hazardous waste facility. - A copy of the safe disposal certificate of these wastes is to be maintained as a record on file and provided to the ECO or DEA on request. The work areas are to be kept clean and maintained in a clean, orderly and presentable conditions always.
	Visual (throughout The Construction phase)	The contractors and subcontractors must maintain good housekeeping in the domain by: - Ensuring equipment, tools, and containers are stacked and stored in a manner that minimises the risk of trip, slip, and fall hazards. - Ensure walkways are always kept clear of tools and equipment. - Racks, shelves and bins always organised. - Ensure stacked items are stable and won't topple over easily.
	Storage of hydrocarbons and hazardous chemicals (throughout The Construction phase)	The contractors and subcontractors must ensure that: - A chemical file for all chemicals stored in the laydown area is in place. - Chemical containers are clearly labelled for ease identification and appropriate storage. - Hazardous and non-hazardous chemicals are stored separately. - Oil drums, tanks and hydrocarbon containers are stored in impermeable bunds, drip trays or other secondary containment devices (110% largest volumes). - Self-contained containers are regularly inspected for leakages. - Chemicals, fat-grease-oil or other hydrocarbons are not stored in any way that may result in the pollution of any soil, surface water or groundwater. - spill kits and spill absorbent treatment materials for the containment of spills during the construction phase are in place. - Major spillage incidents shall be handled in accordance with the emergency response procedure.

Domain 17 - Contractor's area		
	Noise	The following conditions are to be complied with by the contractors and subcontractors: – Early notice/warning of construction works through notices, WhatsApp group text alerts, door-to-door engagement and letter dropping for surrounding residents. – Pre-start checks to be conducted daily on equipment. – Ensure the best available machinery and equipment with low sound output is used. – Construction activities are to be conducted between dawn and dusk. – Employees to be issued with ear plugs. – Avoid unnecessary equipment always idling. – Equipment, vehicles and heavy mining equipment (HME) to be serviced and maintained regularly. – A complaint register must be kept. The third-party ECO must: – Maintain the noise monitoring program to assess the impacts of noise on receptors.
	Heritage	All contractors and subcontractors must: – Avoid disturbing heritage object or resources (when unearthed). – The chance find procedure must be followed (refer to Section 5.5.5).
Environmental pollution control measures (PCM)	Function and performance	Maintenance frequency
	To monitor early sign of soil, surface or groundwater contamination. Used daily to manage the storage, handling of hydrocarbons and spill response kits.	NA

Domain 17 - Contractor's area					
	Used to respond to spill responses.				
Environmental monitoring program	Environmental monitoring				
	Weekly monitoring: The Domain Manager must conduct weekly compliance audits across all work areas within the domain. The weekly checklist (provided in Appendix D) must be completed.				
	Monthly monitoring: The environmental monitoring program and compliance audit must be conducted monthly by the contracted third-party company (independent ECO).				
	Site code	Name	Monitoring purpose	Frequency	Threshold
	Air quality - depositional dust monitoring	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	Monthly	600 mg/m ² /day
	Abstraction volumes - flowmeter readings	Site flow meters on abstraction points	Required to report the monthly abstraction volumes to DWA.	Monthly	As per permit conditions.
	PM ₁₀ and PM _{2.5}	Baseline dust fallout monitoring network	Monitoring dust impacts on sensitive receptors	Quarterly	PM ₁₀ is 75µg/m ³ and PM _{2.5} is 37.5 µg/m ³
	Noise	Monitoring points as determined by the specialist	To monitor noise impacts on the nearest receptors	Biannual	45 dB daytime 35 dB nighttime
	Groundwater levels	Baseline groundwater monitoring network	Required to monitoring aquifer groundwater levels	Monthly	NA

Domain 17 - Contractor's area					
	Potable water quality	Potable sampling points on site	Monitoring water quality of the potable water sources	Monthly	As per the standards of the Water Resources Management Regulations of 2023
	Groundwater quality	Baseline groundwater monitoring network	To monitor the change and trends in groundwater quality for the site	Quarterly	As per permit conditions
Environmental reporting	Domain Manager to report to appointed Environmental Control Officer (ECO) (monthly) – The Environmental Officer shall conduct routine daily, weekly and monthly inspections to determine the level of compliance to the CEMP. – The Domain Manager must complete the weekly compliance checklist. – Report to the appointed ECO any incidents reported during the month involving flora, fauna or construction employees. – Any complaints received from the community. – Report any soil, surface or groundwater contamination incidents. Appointed ECO to report back to Domain Manager and Environmental Officer (monthly) – Advise on action items to be implemented to address complaints received from the community. – Report the level of compliance to the CEMP. – Provide monthly written reports on the environmental monitoring program. – Notify the Domain Manager if monitoring identifies high dust fallout values (especially during site establishment) exceed the threshold and the corrective actions to be implemented.				
Environmental Inspection	Daily	Weekly	Monthly	Other	
	Ascertain dust suppression requirement The storage of oil drums, oil	Inspect for potential soil, surface and groundwater contamination Management	CEMP compliance audit.	Biannual compliance audit and reporting to DEA (as required in the approved ESMP for the Project).	

Domain 17 - Contractor's area				
	and grease containers			
Supporting documents	Domain sign off (Appendix D), Spill Prevention and Management Plan and land clearing permit.			