

## **APPENDIX A : ENVIRONMENTAL MANAGEMENT PLAN**

**ENVIRONMENTAL MANAGEMENT PLAN REPORT:**

**FOR THE EXPLORATION OF BASE AND RARE METALS, DIMENSION STONE,  
INDUSTRIAL MINERALS AND PRECIOUS METALS ON EXCLUSIVE PROSPECTING  
LICENSE (EPL) NO.9250**

**Outjo District, Kunene Region – Namibia**

**Ecc Application No.: 240725004448**

**May 2025**

COMPILED BY



**SS CONSULTANTS**

 [info@ssconsultants.com](mailto:info@ssconsultants.com)

## COPYRIGHT NOTICE

The copy rights to this report are held by the Proponent the holder of the Exclusive Prospecting License No. 9250. Compilation of the report was done by SS Consultants CC herein referred to as ("SS Consultants"). The consultant owns an environmental consulting company which was established in 2016, in line with the Namibia's Companies Act, 2004 (Act No.28 of 2004), with a company registration number SS/2016/13499.

<b>Author</b>	<b>Uaanao Katjinjaa</b>	<b>Proponent</b>	<b>Toivo Natangwe Linekela Megameno lileka</b>
<b>Qualifications and Role</b>	<ul style="list-style-type: none"><li>– BBA (Entrepreneurship)</li><li>– MSc. (Integrated Environmental Management and Sustainable Development)</li><li>– Environmental Assessment Practitioner (SS Consultant CC)</li></ul>	<b>Application Number</b>	<b>240725004448</b>
<b>Email address</b>	<a href="mailto:UKatjinjaa@ssconsultants.co">UKatjinjaa@ssconsultants.co</a>	<b>Postal Address</b>	<b>P. O BOX 1309, Oshakati, Namibia</b>

## TABLE OF CONTENTS

1	INTRODUCTION.....	1
1.1	Project Overview .....	1
1.2.	Location .....	2
1.3.	Purpose of the Environmental Management Plan.....	3
1.4.	Phases of the proposed exploration activities .....	4
2	EXPLORATION TECHNIQUES .....	5
3	POTENTIAL ENVIRONMENTAL IMPACTS .....	7
3.1	Impact on Biodiversity (vegetation and wild animals in the area) .....	7
3.2	Soil erosion and compaction .....	7
3.3	Air Quality.....	7
3.4	Visual .....	7
3.5	Noise.....	7
3.6	Soil and Water resources .....	7
3.7	Cultural heritage.....	7
4	LEGAL AND REGULATORY FRAMEWORK: PERMITS AND LICENSES .....	8
4.1	Biodiversity protection and conservation .....	12
5	ENVIRONMENTAL SPECIFICATIONS AND MANAGEMENT MEASURES .....	14
5.1	Compliance with the Environmental Specifications .....	14
5.2	Training and Awareness .....	14
5.3	Stakeholder Relations .....	14
5.4	Permits .....	15
5.5	Road Safety.....	15
5.6	Access Tracks and Soil disturbance .....	16
5.7	Conservation of Biodiversity (Fauna and Flora) .....	16
5.8	Soils and water resources .....	17
5.9	Wildlife Poaching.....	17
5.10	Occupational Health and Safety.....	18
5.11	Visual impact .....	19
5.12	Waste management.....	19
5.13	Air quality .....	19
5.14	Fire outbreaks .....	20

5.15	Noise.....	20
5.16	Archaeology and heritage resources .....	20
5.17	Compliance Monitoring.....	21
6	ENVIRONMENTAL MANAGEMENT PRINCIPLES.....	22
6.1	Environmental Management Roles and Responsibilities.....	22
6.1.1	The Operating Company (the Proponent) .....	22
6.1.2	Exploration (Operations) Manager .....	23
6.1.3	Environmental Control Officer (ECO).....	23
6.2	Environmental Management System Framework .....	24
6.3	Register of Roles and Responsibilities.....	24
6.4	Communication between Parties.....	24
7	ENVIRONMENTAL MONITORING PLAN .....	25
7.1.1	Project readiness monitoring.....	25
7.1.2	Operational monitoring .....	25
7.1.3	EMP and Environmental quality compliance monitoring.....	25
8	CONCLUSION .....	26

## LIST OF FIGURES

<b>Figure 1-1:</b> EPL-9250 on the Namibia Mines and Energy Cadastre Map Portal (source: <a href="https://maps.landfolio.com/Namibia/">https://maps.landfolio.com/Namibia/</a> ) .....	2
<b>Figure 1-2:</b> Locality Map of the EPL-9250.....	3
<b>Figure 2-1:</b> Exploration process flow chart. ....	5

## LIST OF TABLES

Table 2-1: Exploration activities phases .....	6
Table 4-1 Legal and Regulatory Frameworks in terms of permits and licenses for the project activities. ....	8

## LIST OF APPENDICES

Appendix I: Chance Finds Procedure (Archaeology and Heritage Resources Management)

## LIST OF ABBREVIATIONS

**DEAF** Department of Environmental Affairs and Forestry

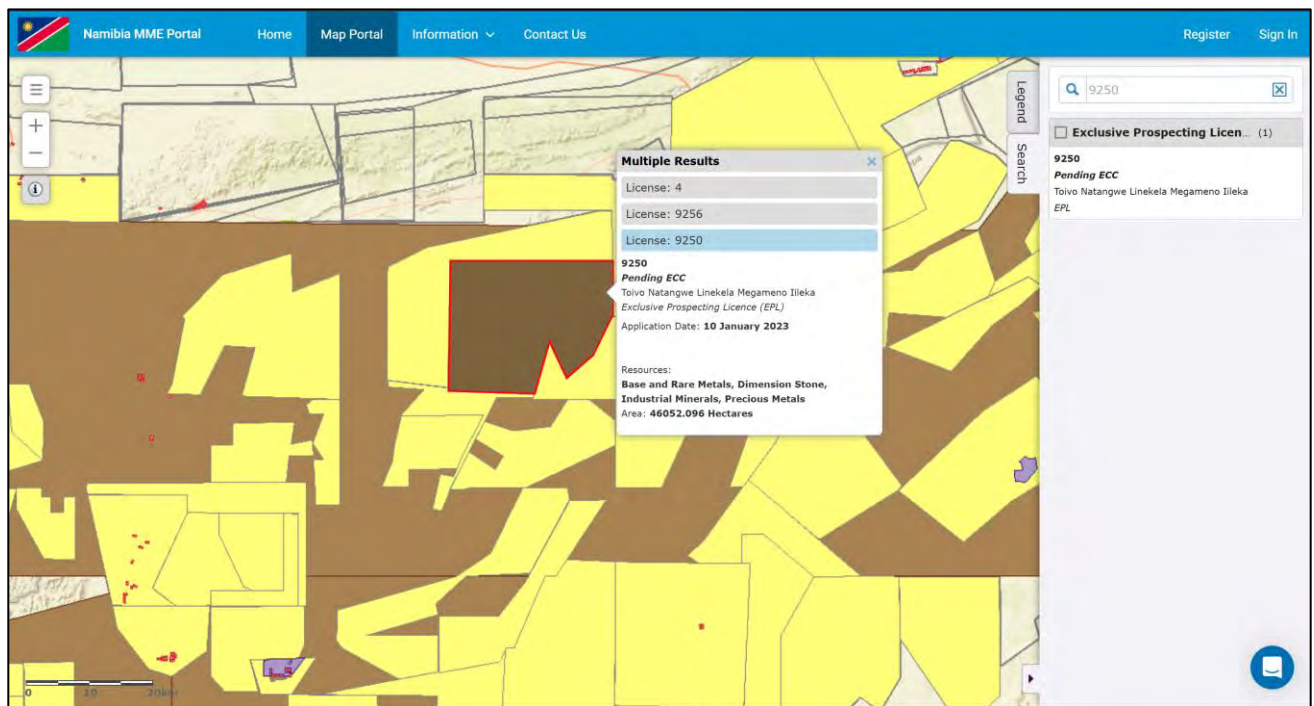
<b>DWA</b>	Department of Water Affairs
<b>ECC</b>	Environmental Clearance Certificate
<b>ECO</b>	Environmental Control Officer
<b>EA</b>	Environmental Assessment
<b>EIA</b>	Environmental Impact Assessment
<b>EMA</b>	Environmental Management Act
<b>EMP</b>	Environmental Management Plan
<b>EPL</b>	Exclusive Prospecting License
<b>GG &amp; GN</b>	Government Gazette & Government Notice
<b>MAWLR</b>	Ministry of Agriculture, Water and Land Reform
<b>MEFT</b>	Ministry of Environment, Forestry & Tourism
<b>PPE</b>	Personal Protection Equipment

# 1 INTRODUCTION

## 1.1 Project Overview

SS Consultants CC (herein referred to as the Consultant) has been appointed by Mr. Toivo Natangwe Linekela Megameno lileka (herein referred to as *the Proponent*) to undertake an Environmental Impact Assessment in order to apply and obtain an Environmental Clearance Certificate (ECC). The Proponent intends to prospect/ explore for base and rare metals, dimension stone, industrial minerals, and precious metals on EPL No.9250. Prior to commencing with proposed exploration activities, an Environmental Management Plan (EMP) needs to be approved by the Environmental Commissioner. process undertaken by the Proponent is required, thus the 'pending' status for the application rights for the proposed exploration activities for base and rare metals, dimension stone, industrial minerals, and precious metals on EPL No.9250 as shown in **Figure 1-1** below.

The Proponent plans to conduct an exploration program on EPL-9250, which will include both non-invasive and invasive exploration methods. Non-invasive exploration methods will include activities such as geological desktop studies, interpretation of aeromagnetic and remote sensing images, field mapping, ground geophysical surveys, and sampling of surface rock and soil. Invasive exploration methods, include drilling (reverse circulation or diamond drilling) and pitting/trenching. The EPL is relatively flat with small undulating hills and is therefore easily accessible via minor car tracks within the area. This minimises the clearance of vegetation in the area needed for the access routes and working sites and for the installation and development of exploration drill holes. Noteworthy, the duration of exploration activities will be over the license tenure, which is valid for three (3) years, once an ECC has been issued for EPL-9250.

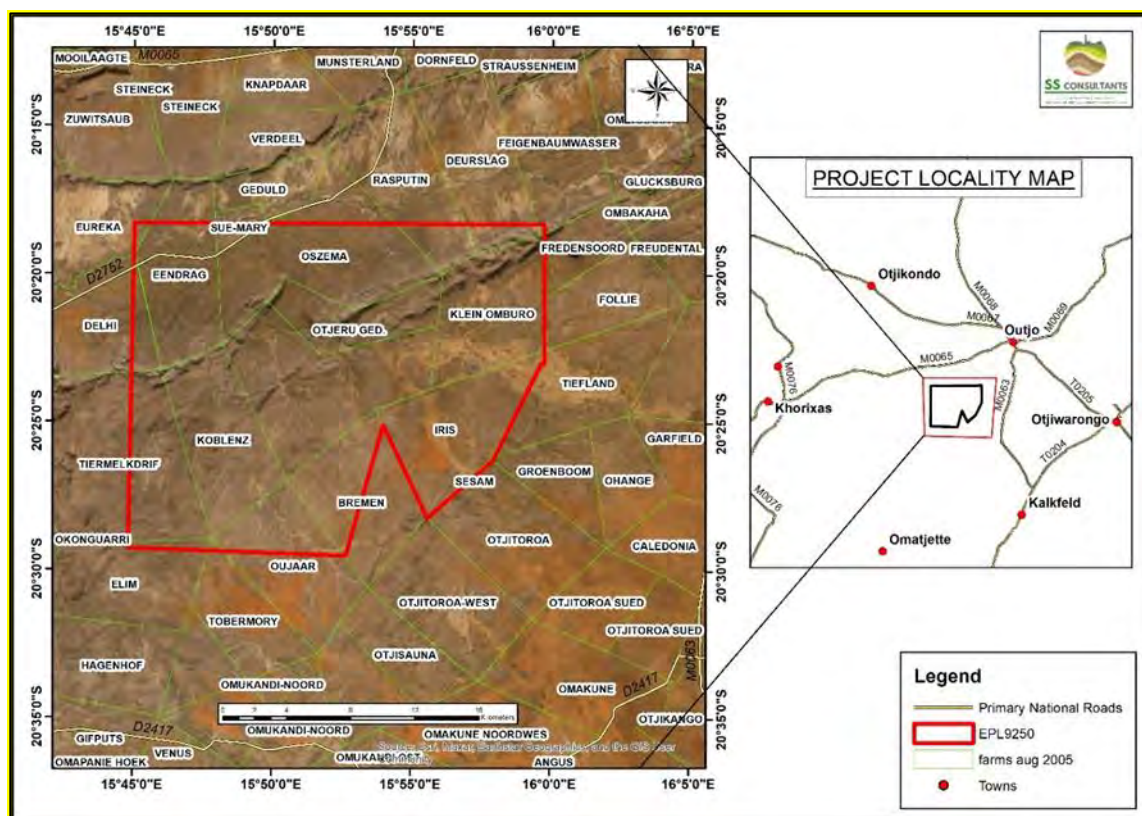


**Figure 1-1:** EPL-9250 on the Namibia Mines and Energy Cadastre Map Portal (source: <https://maps.landfolio.com/Namibia/>)

## 1.2. Location

EPL- 9250 is located about 20km southeast of Outjo Town in the Kunene Region as shown on the locality map in Figure 1-2. The EPL covers 46052.096 Hectares of land and can be accessed from the C38 tarred (from Outjo to Otjiwarongo) and then connects to M63 dirt road. EPL-9250 is partially underlain by farms namely: Berghoh, Bremen, Delhi, Deurslag No. 1154, Iris, Klein Omburo, Oszema and Oujaar.





### 1.3. Purpose of the Environmental Management Plan

The Environmental Management Plan (EMP) is prepared as part of the Environmental Scoping and Impact Assessment for the proposed exploration which was conducted in terms of the Environmental Management Act, 2007 (EMA) (Act No. 7 of 2007). It serves as a vital tool for ensuring sustainable development and the protection of natural resources. Its sole purpose is to guide and regulate human activities to minimize negative environmental impacts and promote the conservation of Namibia's unique ecosystems. It provides a link between the impacts identified in the EA process and the required mitigation measures to be implemented during exploration.

The EMP aims to safeguard the diverse ecosystems, including its rich wildlife, sensitive habitats, and environment. It identifies potential environmental risks associated with development projects and outlines measures to mitigate these risks, ensuring the long-term health and resilience of the environment. It provides management measures to address the environmental effects that have been

identified in the Environmental Scoping Assessment report and to provide possible mitigation measures/recommendations to address these impacts.

#### 1.4. Phases of the proposed exploration activities

The core purpose of the Environmental Management Plan is to guide environmental management throughout the phases of the proposed exploration activities namely; planning, prospecting & exploration, and decommissioning & rehabilitation phase:

Phase	Management Requirement
Planning	<p>The Proponent prepares all the administrative and technical requirements needed for the actual works on the ground.</p> <ul style="list-style-type: none"> <li>▪ Obtaining the necessary permitting and authorization from relevant national and local stakeholders,</li> <li>- <b>Land Access Agreements:</b> Consent from landowners, conservancies, or relevant authorities (e.g., communal land boards).</li> <li>▪ Facilitating the recruitment and procurement processes in preparation for the exploration activities (and site maintenance).</li> </ul>
Prospecting & Exploration	<ul style="list-style-type: none"> <li>▪ Conduct detailing planned activities (e.g., drilling, sampling) to assessment for mineral resources potential,</li> <li>▪ Regular submission of exploration results to MME</li> <li>▪ Maintenance of the area, equipment and machinery is done by the Proponent.</li> </ul>
Decommissioning	<p>The exploration activities on the EPL area cease</p> <ul style="list-style-type: none"> <li>▪ The decommissioning of the EPL exploration activities may be considered due to poor results or declines in the focus commodity market price,</li> <li>▪ Before the decommissioning phase, the Proponent would need to put site rehabilitation measures in place.</li> </ul>

The next chapter summarises the proposed project activities, entailing the systematic approach of the exploration techniques.

## 2 EXPLORATION TECHNIQUES

Exploration takes a long time, and few projects lead to mines and this is due to several reasons. The Proponent plans to conduct exploration activities on the project area mainly focusing on gold, copper, iron oxide, as well as other metals associated with the mineral groups applied. The program includes both non-invasive and invasive exploration techniques. Below is a exploration process flow chart, indicating the different phases and the amount of years associated to the different phases.

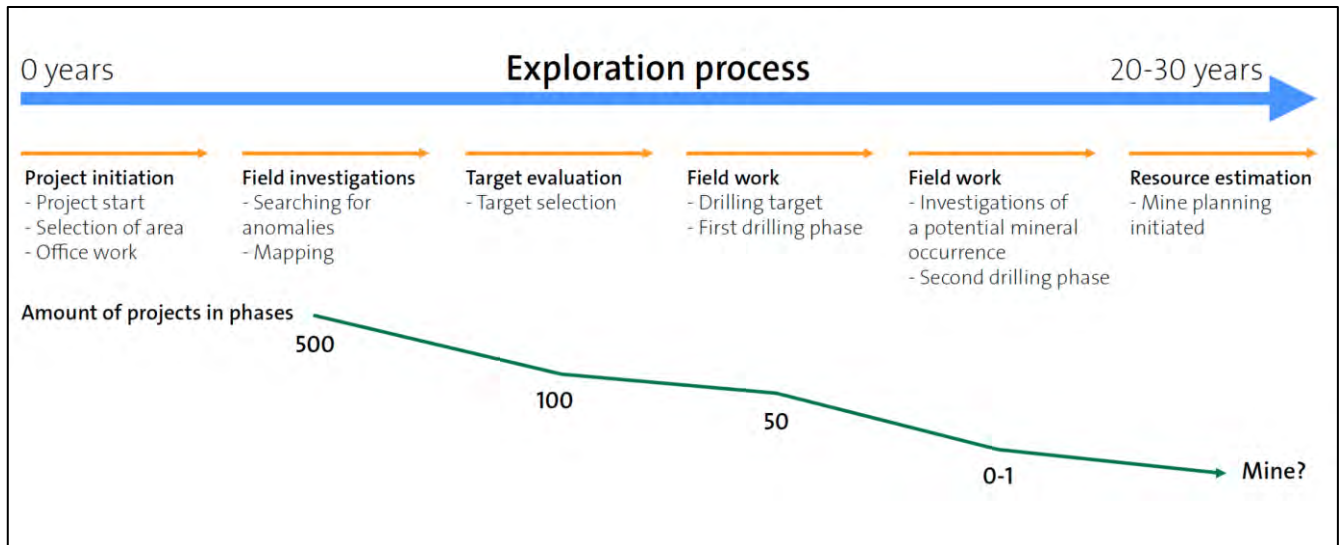


Figure 2-1: Exploration process flow chart.

The exploration program will follow a systematic approach, begins with **project initiation (0 years)**, where the groundwork is laid through defining objectives, securing funding, selecting target areas based on desktop studies, and completing legal due diligence. This is followed by **field investigations**, which involve geophysical and geochemical surveys to identify anomalies, along with detailed geological mapping to assess mineral potential. Once anomalies are detected, the **target evaluation** phase prioritizes the most promising sites for further exploration.

The next stage, **field work (initial drilling phase)**, involves scout drilling, such as RC or diamond core drilling, to test high-priority targets, with samples logged and assayed for mineralization. If results are encouraging, a **second drilling phase (20–30 years later, likely indicating advanced exploration)** is conducted to define the ore body's extent through infill drilling, geotechnical studies, and bulk sampling.

After sufficient data is collected, **resource estimation** begins, where JORC or NI 43-101 compliant reports are generated, and preliminary mine planning, including economic modeling, is initiated. The final phase reflects the attrition rate of exploration projects: while **100** may start, only **50** progress to advanced exploration, **0–1** reach feasibility, and even fewer become viable **mines**. This cyclical process ensures only the most economically feasible projects advance to production.

The exploration program aims to identify economically viable mineral deposits while ensuring responsible environmental management and adherence to regulations.

Table 2-1: Exploration activities phases

Phase	Exploration technique	Description
Phase 1	Desktop study and geological mapping	Thorough review of geological map data, on-site visual assessments of rocks, and the use of geospatial data to identify lithological units, geological structures, mineralization zones, and alteration zones.
Phase 2	Geophysical Surveys	Using various sensing technologies to collect subsurface data to detect and assess geological features, including mineralization
Phase 3	Geochemical Sampling	Collecting earth materials (rocks, soils, sediments) for analysis to determine the presence and quantities of different minerals.
Phase 4	Trenching and Pitting	Excavating an area to obtain a bulk sample of mineralization to understand its characteristics
Phase 5	Drilling and Core Sampling	Penetrating the ground and extracting rocks from different depths to verify the geology or obtain samples for further chemical analysis

Both invasive and non-invasive exploration activities are expected to take place. The combination of prospecting methods has no alternatives therefore; these will be implemented as presented.

### 3 POTENTIAL ENVIRONMENTAL IMPACTS

The key environmental aspects that could be impacted by exploration activities include:

#### 3.1 Impact on Biodiversity (vegetation and wild animals in the area)

Vegetation removal to enable drill pads, access tracks sites on the EPL and establishment of project infrastructures and machinery may result in vegetation and animals disturbance as well as habitat destruction.

#### 3.2 Soil erosion and compaction

Increased compaction of already sensitive desert soils and leaving them prone to erosion potential due to removal of already scarce vegetation and vehicle movements.

#### 3.3 Air Quality

The potential dust and emissions emanating from project activities such as drilling, excavations as well as heavy vehicles moving on and around the site.

#### 3.4 Visual

If done close to the roads, the unrehabilitated explored areas within the EPL may cause a contrast to the surrounding environment which may be visual nuisance to the travellers on the B2 and D1991. The presence of exploration vehicles and machinery close to roads may also be visually unappealing to travellers.

#### 3.5 Noise

The noise from exploration activities such as drilling and excavation may be a nuisance to neighbouring farms as well as wildlife (animals) within the area resulting in the animals migrating away from noise areas of the EPL.

#### 3.6 Soil and Water resources

Potential contamination of site soils, surface and groundwater sources from fuel/chemical spills or poor management of wastewater (effluent), i.e., irresponsible and unauthorized discharge of wastewater.

#### 3.7 Cultural heritage

Potential disturbance of archaeological or sacred sites, particularly the unmarked ones or in the subsurface.

## 4 LEGAL AND REGULATORY FRAMEWORK: PERMITS AND LICENSES

This chapter outlines all the relevant Namibian legislation, policies and guidelines that need to be adhered to for an effective EIA process. The review of the legal framework helps to inform the Proponent, affected, and interested communities, and the decision makers at the MEFT: DEAF about the requirements and expectations, as laid out in terms of these instruments, to be met so that the exploration activities could be conducted. This EMP was carried out based on the EMA No. 7 of 2007 and its EIA Regulations of 2021 (GG No. 4878 GN No. 30), and following the conditions set by EMA for obtaining an ECC for permission to conduct certain listed activities. The Proponent must equally ensure adherence to the regulations put in place by the Minerals (Prospecting and Mining) Act No. 33 of 1992 with regards to the exploration activities. The list of legal and regulatory requirements governing the project activities is provided in the Scoping Report. Thus, the legal section in the EMP as stipulated by Section 8 (e) of the EIA Regulations, primarily on specific approvals and permits that may be required for the activities required on the EPL. These are provided in Table 4-1.

Table 4-1 Legal and Regulatory Frameworks in terms of permits and licenses for the project activities.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Environmental Management Act EMA (No 7 of 2007)	Requires that projects with significant environmental impacts are subject to an environmental assessment process (Section 27).  Details principles which are to guide all EAs.	The EMA and its regulations should inform and guide this EA process.  Should the ECC be issued to the Proponent, it should be renewed every 3 years, counting from the date of issue.  For ECC amendment or cancelation, the MEFT should be notified.
Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 4878)	Details requirements for public consultation within a given environmental assessment process (GN 30 S21).	Contact details at the Department of Environmental Affairs and Forestry (DEAF), Ministry of Environment, Forestry and Tourism (MEFT), Office of the Environmental Commissioner: Mr. Timoteus Mufeti

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
	Details the requirements for what should be included in a Scoping Report (GN 30 S8) and an Assessment Report (GN 30 S15).	Tel: +264 61 284 2701
Minerals (Prospecting and Mining) Act (No. 33 of 1992)	Section 48 (3): To enable the Minister to consider any application referred to in section 47 the Minister may (b) require the person concerned by notice in writing to (i) carry out or cause to be carried out such environmental impact studies as may be specified in the notice.	<p>The Proponent should ensure that all necessary permits/authorizations, including the certificate for the EPL are obtained from the Ministry of Mines and Energy (MME).</p> <p>Contact person and details at the MME (Mining Commissioner): Mrs. Isabella Chirchir</p> <p>Tel: +264 61 284 8251.</p>
	Section 52 (1) (a) requires mineral license holders to enter into a written agreement with affected landowners before exercising rights conferred upon the license holder.	The Proponent should timely enter into and sign access and land use agreement (consent) with the land user (custodian) MEFT's Wildlife & National Parks and affected farmer prior to undertaking any activities on the EPL (including mobilization).

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Water Resources Management Act (No 11 of 2013)	Ensure that the water resources of Namibia are managed, developed, used, conserved, and protected in a manner. Therefore, a Groundwater Abstraction & Use Permit should be applied for. The Permit is required for all commercial and industrial water uses. Although, exploration is not entirely commercial, the associated activities such as drilling fall under industrial activities, thus, the need to apply for an abstraction permit (this would apply if the Proponent abstracts water outside the EPL area)	The Water Permit should be applied from the Ministry of Agriculture, Water and Land Reform (MAWLR)  Department of Water Affairs (DWA): Contact: Mr. Franciskus Witbooi Division: Water Policy and Water Law Administration Division  Tel: +264 61 208 7158
	For any project wastewater planned for discharge into the environment, a discharge permit should be applied for and obtained.	MAWLR, DWA' Water Environment Division  Contact: Ms. Elise Mbandeka  Tel: +264 61 208 7167
Nature Conservation Ordinance 4 of 1975	The conservation of nature; given that the exploration activities will be done in proximity to endangered species or protected areas.	Adhere to the operational rules and regulation of the conservancy areas and ensure that consent is obtained from MEFT to carry out exploration.



Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
		MEFT's Directorate of Wildlife & National Parks
Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001)	Regulation 3(2)(b) states that "No person shall possess or store any fuel except under authority of a licence or a certificate, excluding a person who possesses or stores such fuel in a quantity of 600 litres or less in any container kept at a place outside a local authority area"	<p>The Proponent should obtain the necessary authorisation from the MME for the storage of fuel on-site (Consumer Installation Permit).</p> <p>Mr. Carlo Mcleod (Ministry of Mines and Energy: Acting Director – Petroleum Affairs)</p> <p>Tel: +264 61 284 8291</p>
National Heritage Act No. 76 of 1969	Call for the protection and conservation of heritage resources and artefacts.	<p>For any archaeological material, such as bones, unknown graves, old weapons/equipment etc. that may be found on the EPL, work should stop immediately, and the National Heritage Council (NHC) of Namibia must be informed as soon as possible. The Heritage Council will then decide to clear the area or decide to conserve the site or material.</p> <p>Contact Details at the NHC of Namibia:  Mrs. Erica Ndalikokule – NHC Director  Ms. Agnes Shiningayamwe (Heritage Officer)</p> <p>Tel: +264 61 301 903</p>

#### 4.1 Biodiversity protection and conservation

The region values biodiversity protection and conservation due to its rich ecological diversity and unique wildlife. The town and its surroundings are home to various plant and animal species, making it a significant area for conservation efforts.

Biodiversity protection and conservation in Outjo are primarily carried out through several key initiatives:

- **Conservation Areas:** Kunene region has established protected areas and wildlife reserves to safeguard critical habitats and the species residing within them. These areas are carefully managed to prevent human encroachment and maintain ecological balance.
- **Community Involvement:** Local communities in Outjo actively participate in biodiversity conservation initiatives. By engaging with residents, conservation organizations foster a sense of responsibility and stewardship towards the environment, ensuring sustainable practices are embraced.
- **Wildlife Monitoring and Research:** Ongoing wildlife monitoring and research help understand the region's biodiversity and ecosystem dynamics better. This data-driven approach guides conservation strategies and enables informed decision-making.
- **Habitat Restoration:** Efforts are made to restore and rehabilitate degraded habitats in Kunene region. Replanting native vegetation and removing invasive species support ecosystem health and biodiversity.
- **Anti-Poaching Measures:** Outjo places a strong emphasis on anti-poaching measures to protect vulnerable and endangered species from illegal hunting and trade.
- **Environmental Education:** Promoting environmental education in schools and communities' fosters awareness and appreciation for the region's biodiversity. It instils a sense of responsibility for protecting the environment among the younger generations.
- **Sustainable Tourism:** Outjo promotes responsible and sustainable tourism practices that minimize environmental impact while providing opportunities for visitors to experience the area's natural beauty and wildlife.
- **Partnerships and Collaboration:** Collaborating with governmental agencies, NGOs, and international organizations strengthens conservation efforts by combining resources, expertise, and knowledge.

The commitment to biodiversity protection and conservation in Outjo is crucial for maintaining the ecological balance and preserving the unique natural heritage of the region for future generations. By implementing these initiatives and fostering a culture of environmental stewardship, Outjo aims to ensure the sustainability of its rich biodiversity and ecosystems.

## 5 ENVIRONMENTAL SPECIFICATIONS AND MANAGEMENT MEASURES

### 5.1 Compliance with the Environmental Specifications

The activities will be conducted in an environmentally and socially responsible manner. The Proponent and all site personnel (drilling including contractors) will comply with the environmental specifications contained in this section.

- EMP trainings should be provided to all workers on site.
- All site personnel should be aware of necessary health, safety, and environmental considerations applicable to their respective work.
- The implementation of this EMP should be monitored bi-annually.
- The site should be inspected, and a compliance audit done throughout the project activities, monthly and bi-annually for overall EMP implementation.
- An EMP non-compliance penalty system should be implemented.
- The ECC should be renewed every 3 years. An application should be submitted at least 1 month before expiry date.

### 5.2 Training and Awareness

- All site personnel and site contractors will receive the training to equip them with the necessary knowledge to comply with the environmental specifications. The Exploration Manager will ensure that an appropriate level of training is provided at all levels of site personnel.

### 5.3 Stakeholder Relations

- All site personnel should maintain good relations with the land custodians and members of the public. Any complaints received by the ECO should be addressed.
- Compile a clear communication procedure / plan which should include a grievance and response mechanism and shared with stakeholders (nearby farms and other land users).
- Engagement for land use where necessary, farm access agreements should be done prior to mobilizing to site. This should be communicated at least 2 months before commencement of exploration activities.
- Stakeholders (land custodian) and neighbouring farmers (land users) should be kept posted on any changes, progress or delays on the project activities communicated or agreed upon.
- The issues or complaints raised by the stakeholders should be effectively attended to timely, and resolved amicably.

#### 5.4 Permits

All relevant permits shall be obtained from relevant authorities. These include:

- Environmental Clearance Certificate (ECC) by the Environmental Commissioner at MEFT: DEAF, and should be timely renewed, amended (if changes arise in the project description), if needed, transfer the ECC by submitting the application to the Environmental Commissioner and or cancel it if the project is discontinuing.
- EPL certificate from MME and should be timely renewed as required.
- Wastewater (effluent) handling and discharge permit from the Water Environment Division at MAWLR.
- Fuel Storage onsite (Consumer installation certificate) in excess of 600 litres from the MME.
- The removal or relocation of rare and endangered plants will be conserved, and should it be removed or relocated it shall be done with the required permits from the Directorate of Forestry at MEFT.

#### 5.5 Road Safety

The access roads can be dangerous at times due to dust from passing vehicles, poor camber, patches of loose sand, careless drivers and other external factors.

All drivers must be aware of these hazards and take precautions to avoid them. Such precautions will include, but not be limited to:

- Complying with speed limits onsite (maximum 40km/hour),
- All vehicle drivers should be appropriately licensed to operate such vehicles and operating machinery,
- No driver is allowed to operate a vehicle while under influence of alcohol or narcotic substances,
- Reducing speed considerably when visibility is poor,
- Being wary of other vehicles,
- Travelling with lights on even in daylight,
- Slowing down for animals and birds on the road, and
- Being cautious of other road users– taking into account reduced visibility due to dust.
- Drivers should drive slowly (40km/hour or less) and be on the lookout for wildlife.

## 5.6 Access Tracks and Soil disturbance

- No new tracks should be made unless there are no pre-existing tracks, any new tracks or extensions should be established with the permission of the MEFT and where the EPL overlies a farm, the landowner should give consent prior to creating a track.
- The selected access and site roads should be clearly marked. A single road only should be used to and from each destination of the EPL site. Turning points for vehicles should also be pre-selected and marked. Care to be taken to avoid damage to plants.
- Any elevated sites, or sites away from existing tracks should be accessed on foot instead of driving there (in a vehicle).
- Stockpiled topsoil and drill materials should be used to backfill the excavated and disturbed site areas.
- The topsoil that was stripped from active sites should be returned to where it was taken.
- Avoid soils that are not within the intended footprints of the EPL should be left undisturbed and soil conservation implemented as far as possible.

## 5.7 Conservation of Biodiversity (Fauna and Flora)

- Damage to all plants will be avoided at all costs.
- Vegetation should only be cleared when absolutely necessary, and the number of protected, endemic, and near-endemic species removed should be documented.
- Identify protected areas and ensure no harmful exposure to the biodiversity
- Animals on and around the site should not be disturbed, trapped nor killed.
- No killing of small soil and rock outcrops' species found on site.
- Ensure that exploration trenches and holes are secured (temporary fenced off) then backfilled after completing exploration works on them to prevent injuries to animals (by falling in trenches or holes).
- The project workers and vehicles should be limited to the actual EPL active sites only but not unnecessarily wander and drive around the area resulting in unnecessary faunal and floral disturbance.
- Avoid off-road driving as it leads to the destruction of site vegetation. Therefore, rather stick to provided and approved access tracks.
- Working hours should be limited to during the day, thus enabling the wildlife to roam freely at night. In other words, no exploration to be carried out between 6pm and 07am, in other words no activities

to be carried during the night or early morning hours (at least not until 07h00). No food stuff should be left lying around as this will attract animals which may result in human-animal conflict onsite.

## 5.8 Soils and water resources

- Employees must be trained on the correct hydrocarbon storage and handling techniques.
- Vehicles and machinery must be stored in bounded areas when not in use or a drip tray should be placed beneath potential leakage points.
- Spill control preventative measures should be put in place to manage soil contamination.
- Employees must be trained in spill management.
- Appropriate storage and handling of hydrocarbons on site are essential.
- Potential contaminants such as hydrocarbons and wastewater should be contained on site and disposed of responsibly so that they do not contaminate surrounding soils and groundwater.
- An emergency plan should be available for major / minor spills at the site during operation activities (with consideration of air, groundwater, soil and surface water) and during the transportation of the product(s) to the site.
- Polluted soil should be removed immediately and put in a designate waste type container for later disposal.
- All vehicles should be equipped with drip trays and where generators are used. These fuel consuming vehicles and machinery should be monitored to ensure that accidental fuel spills along are cleaned up immediately.
- Polluted soil must be collected and transported away from the site to an approved and appropriately classified hazardous waste treatment facility.

No washing of hydrocarbons contaminated equipment onsite. The washing and servicing of vehicles is prohibited onsite.

## 5.9 Wildlife Poaching

- No animal or bird is to be captured, killed or harmed in any way. Anyone caught violating this law will face suspension from the project and could be liable for prosecution. In a likewise manner, livestock at nearby farms may also not be harmed.
- Poaching of wildlife is strictly prohibited and is punishable by law. Incorporate a No-tolerance rule for poaching in every employment contract and ensure that the workers understand the seriousness of this.

## 5.10 Occupational Health and Safety

- All project personnel should receive a detailed induction upon joining the project and on a regular basis, if necessary, refresher training should be provided.
- Project workers should be inducted with an awareness training of the risks of mishandling equipment and materials on site and health & safety risk associated with their respective jobs.
- Ensure that all project personnel are provided with adequate and appropriate personal protective equipment (PPE) such as coveralls, gloves, safety boots, earplugs, dust masks, safety glasses. These are crucial to prevent potential injuries and excessive inhalation of dust or harmful gases.
- Eating, drinking, and smoking while working with any materials that are flammable should be forbidden.
- Good personal hygiene is encouraged (e.g., washing hands before eating) to prevent ingestion of potentially hazardous or radioactive materials.
- The project site should be equipped with fully first aid kit onsite and two to three people should be trained on how to administer first aid on others.
- Marking disturbance areas and buffer zones to avoid unnecessary impacts.
- Installing sediment controls around holes and access roads
- Implement a spill response plan and providing spill kits at all work sites and ensure that two to three personnel are trained on how to use it.
- All risk exposure areas should be temporarily fenced off and marked as such.
- All loads should be securely fastened on vehicles when transported or structures where loads are stored.
- Engage workers in sexual health talks and training about the dangers of engaging in unprotected sexual relations which results in contracting HIV/AIDS and other sexual related infections.
- The site should be provided with condoms and sex education through distribution of pamphlets and health trainings. These pamphlets can be obtained from the nearest local health facility.



### 5.11 Visual impact

- The EPL portions or areas close to the roads (M63 and C39) should be progressively rehabilitated during exploration over the shortest timescale possible to ensure that there is no prolonged visible and excessive land disturbances.
- All access roads leading to the EPL should have speed limits of no more than 40km/h to minimise the amount of dust generated by the vehicles. This in turn will also minimise any potential air quality concerns in the vicinity of the project, which importantly includes the C38 highway.
- Utilize stockpiled topsoil to partially back fill explored sites, thus, minimizing visual impacts.
- Consider a phased exploration and direct placement of overburden (topsoil and waste rocks) and other site-derived materials to allow progressive restoration around the margins of the explored site areas

### 5.12 Waste management

- Sensitize workers to dispose of waste in a responsible manner and not to litter.
- No wastes should be left onsite or scattered around.
- All solid waste should be contained onsite until such that time it will be transported to designated waste sites.
- No waste may be buried or burned on site or anywhere else.
- The site should be equipped with separate waste bins for hazardous and general/domestic waste.
- Oil spills should be taken care of by removing and treating soils affected by the spill.
- Implement a penalty system for irresponsible disposal of waste on site and anywhere in the area.
- Ensure careful storage and handling of hydrocarbons onsite.
- Implement an emergency plan for major/minor spills onsite.
- No open defecation is allowed on and around the site.
- Sewage waste should be stored as per the portable chemical toilets supplied on site and regularly disposed of at the nearest treatment facility
- Provide sufficient portable toilet facilities for workers onsite.

### 5.13 Air quality

- Vehicles should not be driven at a speed more than 40km/h onsite to avoid dust generation.

- A reasonable amount of water should be used on gravel roads, using regular water sprays on gravel routes and near exploration sites to suppress the dust onsite.
- Dust masks, eye protective glasses and other respiratory personal protective equipment (PPE) such as face masks should be provided to the workers at drilling sites.

#### 5.14 Fire outbreaks

- Portable and serviced fire extinguishers should be provided onsite.
- No open fires to be created by project personnel onsite or anywhere in the environment.
- Open fires are prohibited onsite.
- Smoking personnel should be provided with a designated for such and ensure that the cigarettes' fire is completely put out to and disposed of in allocated bins and not in the environment.
- Potential flammable structures like fuel storage tanks should be marked as such with clearly visible signage.
- Raise awareness to workers on the impact of careless handling of fires and flammable substances in the fire.

#### 5.15 Noise

- Noise from operations' vehicles and equipment on the sites should be at acceptable levels.
- When operating the drilling machinery onsite, workers should be equipped with personal protective equipment (PPE) such as earplugs to reduce exposure to excessive noise.
- Exploration activities should only take place between 07h30 and 17h00 only and not in the night or morning hours before 07h30.
- Avoid flying aircrafts directly over human settlements.
- Consult with the relevant stakeholders when would be the best suited time to fly prior to commencing with the flights.
- Noise levels should adhere to the South African National Standards (SANS) regulations 10103.

#### 5.16 Archaeology and heritage resources

- A "No-Go-Area" should be put in place where there is evidence of sub-surface archaeological materials, archaeological sites, gravesites, historical, rock paintings, cave/rock shelters or past human dwellings. It can be a demarcation by fencing off or avoiding the site completely by not working closely or near the known site.

- Avoid intentional damage to or destruction of any outcrop that harbours caves or rock shelters, painting. These should be marked and the sites should be adjusted to avoid them.
- An archaeological expert must be appointed to undertake a detailed archaeological survey once targets have been identified for drilling and/or other mechanically-assisted exploration, and prior to the commencement of any such activities.
- All works are to be immediately ceased should an archaeological or heritage resource be discovered during activities onsite.
- The project should adopt an Archaeological Chance Finds Procedure (Appendix I) to cater for unexpected discoveries of archaeological remains in the course of exploration.
- The National Heritage Council of Namibia (NHCN) should be consulted/engaged to advice on the removal, packaging and transfer of the potential archaeological resource.

#### 5.17 Compliance Monitoring

During exploration activities, the company ECO will conduct site compliance inspections at least once a month. After each inspection the ECO will compile an EMP compliance report for regular submission to the Exploration Manager and biannually to the MEFT or as required.

## 6 ENVIRONMENTAL MANAGEMENT PRINCIPLES

On principle, the EMA provides for the promotion of sustainable management of the environment and the use of natural resources by establishing principles for decision making on matters affecting the environment. In this manner, this section of the EMP presents the principles to be adhered by the Proponent and involved personnel. The participants to the exploration activity will be expected to conduct all their activities in an environmentally and socially responsible manner. This includes all consultants, contractors, and subcontractors, as well as transport drivers, visitors, and individuals involved in the mineral exploration project who enters the exploration regions.

The Proponent will ensure that all project participants adhere to the following principles:

- All employees will be obliged to undertake activities in an ecologically and socially responsible way,
- Safeguard the health and safety of project personnel and the public against potential impacts of the project. This includes issues of road safety, precautions against dangers on site and potential hazards,
- Promote good relationships with the surrounding settlements and other stakeholders,
- Wise use and conservation of environmental resources, giving due consideration to the use of resources by present and future generations,
- Prevent or minimize environmental impacts, and
- Minimize air, water, and soil pollution; and conserve biodiversity.

### 6.1 Environmental Management Roles and Responsibilities

#### 6.1.1 The Operating Company (the Proponent)

The Proponent is ultimately responsible for all stages of the project and the impacts resulting from those activities. It is also the Proponent's responsibility to appoint an Environmental Control Officer (ECO) and their responsibility to ensure that:

- The EMP and its environmental specifications are included in contractual documents and it is required that contractors, and subcontractors, consultants etc. do meet the EMP requirements,
- The company and all its subcontractors, consultants etc. comply with all Namibian legislation and policies and any relevant International Conventions,
- Compliance with the environmental specifications is enforced on a day-to-day basis,

- Environmental audits are conducted periodically by a suitably qualified ECO to confirm that the environmental requirements are properly understood and effectively implemented,
- Sufficient budget is provided to implement those measures that have cost implications,
- The site manager must commission tree surveys well in advance of planned road construction or drill pad preparation so that the necessary site visits by forestry personnel and forestry permits are acquired, and
- Open an effective communication between all parties concerning environmental management on the project.

#### 6.1.2 Exploration (Operations) Manager

The day-to-day responsibility for environmental management will be assigned to the ECO and Exploration Manager for the duration of all operational activities. The responsibilities for the Exploration Manager will be to:

- Be accustomed with the contents of the EMP and applicable sections of the EIA and the measures recommended therein,
- Monitor compliance with the environmental specifications on a daily basis and enforce the environmental compliance on site by communicating the ECO's directions to all personnel involved,
- In the event of any infringements leading to environmental damage, personnel need to consult with the ECO and seek advice on any remedial measures to limit or rectify the damage,
- Maintain a record (photographic and written) of "before-and-after" conditions on site, and
- Facilitate communication between all role players in the interests of effective environmental management.

#### 6.1.3 Environmental Control Officer (ECO)

A suitably qualified ECO will be appointed and will be responsible for:

- Undertaking environmental audits of overall compliance with the environmental specifications. This should be done at least bi-annually.
- Submitting a site inspection report to the Exploration Manager;
- Advising the Exploration Manager on interpretation and implementation of the environmental specifications as required, and
- Making recommendations for remedial action in cases of non-compliance with the environmental specifications or the EMP requirements in general.

## 6.2 Environmental Management System Framework

The Proponent and its contractors will create and implement an Environmental Management System (EMS) to apply Environmental Management Practices. The structure for compiling a project EMS is established in this section. All environmental management paperwork will be kept in a paper and/or electronic system by the applicable exploration EMP.

These may include, but are not limited to:

- Standard operating procedures for the implementation of the environmental action plan and management program,
- Procedures for dealing with incidents and emergencies,
- Procedures for auditing, monitoring, and reporting, and
- EMP compliance method statements for ad hoc actions not explicitly covered in the EMP action plans.

## 6.3 Register of Roles and Responsibilities

Relevant roles and duties will be identified during project planning and risk assessments. All environmental commitment duties and obligations must be documented in a register. The register must include pertinent contact information and be updated as needed.

## 6.4 Communication between Parties

Emphasis will be put towards open communication between all parties to reach a proactive approach towards potential environmental issues deriving from the project. This approach should guarantee that environmental impacts are anticipated and prevented, or minimised, rather than adopting a negative “policing” approach after negative impacts have already occurred. The importance of a proactive approach cannot be overemphasised, particularly in relation to preventing unnecessary tracks, and damage to vegetation (i.e. protected and endemic species) as these impacts cannot easily be remedied.

## 7 ENVIRONMENTAL MONITORING PLAN

The project monitoring is conducted under the EMP and includes:

### 7.1.1 Project readiness monitoring

Monitoring to check progress on project readiness and close gaps through corrective actions.

### 7.1.2 Operational monitoring

This is required as part of the operations of the subproject and will be undertaken by the relevant government department or a nominated private sector operator.

### 7.1.3 EMP and Environmental quality compliance monitoring

To be conducted by the appointed external Environmental Consultants to verify EMP compliance during project implementation. To be conducted by a competent authority or person appointed by the Proponent, involving the collection and analyses of air quality, noise and water quality data at designated monitoring locations for assessing compliance with applicable environmental quality and emission standards.

## 8 CONCLUSION

The Environmental Management Plan (EMP) presented in this report outlines the proactive measures that will be implemented to effectively mitigate the potential environmental impacts of the proposed exploration and possible test mining operations within EPL-9250. The EMP details a comprehensive management strategy to address environmental concerns and ensure responsible and sustainable practices throughout the project's lifecycle.

By adhering to the Environmental Regulations of 2012 and the provisions set forth by the project proponent, the approach and methodology for the EIA will be rigorous and thorough.

The implementation of the EMP is essential to minimize negative effects on the environment while maximizing positive outcomes. It will focus on employing best practices, innovative technologies, and environmental safeguards to protect the natural surroundings and the well-being of local communities.

By following the EMP guidelines, the project aims to enhance the overall ecosystem services and value of the EPL-9250 and its vicinity. This means conserving and protecting biodiversity, water resources, and cultural heritage, while simultaneously contributing to sustainable economic development. Therefore, this EMP embodies the project Proponent's commitment to responsible and environmentally conscious practices. Through the implementation of the EMP and the rigorous EIA process, the project aims to strike a balance between exploration and environmental conservation, ensuring a harmonious coexistence between human activities and the natural environment.



## APPENDIX I: CHANCE FINDS PROCEDURE

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

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

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

### Responsibility:

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

### Procedure:

Action by person identifying archaeological or heritage material

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

Action by foreman

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

Action by superintendent

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

Action by Archaeologist

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

In the event of discovering human remains

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