ENVIRONMENTAL SCOPING AND ASSESSMENT REPORT FOR THE PROPOSED MINERAL EXPLORATION ON EPL NO.7576

Usakos District,

Erongo Region

APP No. 2210100000031

2023

COMPILED BY

SS CONSULTANTS

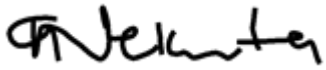
info@ssconsultants.com

COPYRIGHT NOTICE

DISCLAIMER

The author of this report has neither shares nor economic interest in EPL 7576. The report therefore was written without any conflict of interest. This is an Environmental Scoping Assessment report; it also includes the consultant findings during the field site visit. It contains certain forward-looking statements which have been based solely on available literature as well as field data. SS Consultants will not be held responsible for any omissions and inconsistencies that may result from information that was not available at the time this document was prepared and submitted for evaluation. The author's current expectations about future proceedings are subject to several risks and uncertainties beyond his/her control. Therefore, author does not assurance that such statements will prove to be accurate and future events could differ materially from those anticipated in such statements. Due care and attention have been taken in the preparation of this report. However, the information contained in this report (other than as specifically stated) has not been independently verified nor has it been audited. Accordingly, the company does not warrant or represent that the information contained in this report is accurate or complete. The scientifically information contained in this document was compiled by SS Consultants headed by a Senior Geologist and Environmental Specialist with more than over seven (8) years geological experience in Namibia.

COMPILED BY:

Author:	**Anna Nekuta**
Qualifications and Role	BSc Honours (Geology), M.Sc. (International Energy Studies and The Environment) Environmental Assessment Practitioner SS Consultant CC
Email address:	admin@ssconsultants.co
Signature:	 ……

PROPONENT:

Cadan Minerals and Resources Close Corporation
P O Box 2930, Windhoek,
Namibia

TABLE OF CONTENTS

COPYRIGHT NOTICE ii

DISCLAIMER ii

LIST OF FIGURES vii

LIST OF TABLES vii

APPENDICES viii

LIST OF ACRONYMS ix

EXECUTIVE SUMMARY x

1 INTRODUCTION 1

1.1 Project background 1

1.2 Locality 1

1.3 Need and Desirability of the Project 3

1.4 Scope of Work 4

2 LEGAL FRAMEWORK: LEGISLATION, POLICIES AND GUIDELINES 6

3 DESCRIPTION OF THE PROJECT ACTIVITIES 15

3.1 Planned Exploration phases 15

3.2 Infrastructure and Services 17

3.2.1 Water 18

3.2.2 Power 18

3.2.3 Road Access 19

3.2.4 Contractors' Accommodation 19

3.2.5 Transportation 19

3.2.6 Domestic and hazardous waste 20

3.2.7 Resources and Working Team 20

3.2.8 Site Access 21

3.2.9 Health and Safety 21

4 PROJECT ALTERNATIVES CONSIDERED 22
4.1 No-Go Option 22
4.2 Project Location 23
4.3 Services Infrastructure 26
5 PUBLIC CONSULTATION 30
5.1 Objective 30
5.2 Approach 30
5.3 Public consultation 31
6 GEOLOGY, BIOPHYSICAL AND SOCIAL BASELINE 33
6.1 Geology 33
6.1.1 Regional geology 33
6.1.2 Local geology surrounding EPL 7576 33
6.2 Landscape and Topography 36
6.3 Biophysical Environment 37
6.3.1 Climate 38
6.3.2 Water Resources: Surface and Groundwater 38
6.3.3 Fauna and Flora 38
6.3.4 Archaeological and Heritage Resources 39
6.4 Social Base 40
6.4.1 Social Environment 40
6.4.2 Social Demographics 41
6.4.3 Economy 41
6.5 Land Use 41
7 IMPACTS IDENTIFICATION, DESCRIPTION AND ASSESSMENT 42
7.1 Impact Assessment 42
7.1.1 Extent (spatial scale) 44

7.1.2 Duration 44

7.1.3 Intensity, Magnitude / severity 45

7.1.4 Probability of occurrence 46

7.1.5 Significance 46

7.2 Pre-operational Phase Impact Assessment 48

7.2.1 Impact Assessment of Biodiversity Loss 48

7.3 Operational Phase Impact Assessment 50

7.3.1 Impact Assessment of Wildlife 51

7.3.2 Impact Assessment of Soil, Surface, and Groundwater 52

7.3.3 Impact Assessment of Erosion 53

7.3.4 Impact Assessment of Waste 53

7.3.5 Impact Assessment of Health and Safety 54

7.3.6 Impact Assessment of Dust 55

7.3.7 Impact Assessment of Noise 56

7.3.8 Impact Assessment of Archaeological and Heritage Resources 57

7.3.9 Impact Assessment of Social Environment 58

7.4 Decommissioning Phase 58

7.4.1 Impact on Groundwater 58

7.4.2 Impact on Employment 59

8 CONCLUSION AND RECOMMENDATIONS 60

8.1 Conclusion 60

8.2 Recommendation 62

9 REFERENCES 63

LIST OF FIGURES

Figure 1-1: Locality map for EPL 7576 in the Erongo Region. 2
Figure 4-1: Location map for EPL 7576 with corner coordinates 23
Figure 4-2: Map showing the location of EPL 7576 in relation to existing farms. 25
Figure 5-1: Public consultation meeting in Uis on the 17th June 2023. 32
Figure 6-1: Local geology map around EPL-7576. 35
Figure 6-2: Images showing EPL 7576 Landscape and Topography. The images were taken during the site visit. 37
Figure 6-3: Prunus Fasciculata 39
Figure 6-4: Faidherbia Albida 39
Figure 6-5: Acacia Fleckii 39
Figure 6-6: Acacia Tortils 39

LIST OF TABLES

Table 1: Corner coordinated for EPL 7576 2
Table 2: Summary of EPL 7576 location details 3
Table 3: A summary of the contents covered by the present report. 5
Table 4: Presents the full list of all applicable legislation identified and conducted during the EIA process: 7
Table 5: Alternatives considered in terms of services infrastructure 27
Table 6: Generalized Stratigraphy of the Damara Supergroup within the sCZ (modified from Badenhorst, 1992; Miller, 2008). 35
Table 7: Extent or spatial impact rating 44
Table 8: Duration impact rating 44
Table 9: Intensity, magnitude, or severity impact rating 45
Table 10: Probability of occurrence impact rating 46
Table 11: Significance rating scale 47
Table 12: Assessment of the impacts of the exploration activities on biodiversity loss 48
Table 13: Assessment of the impacts of the exploration activities on archaeological and heritage resources 50
Table 14: Assessment of the impacts of the exploration activities on wildlife 51

Table 15: Assessment of the impacts of the exploration activities on soil, surface and groundwater 52
Table 16: Assessment of the impacts of the exploration activities on waste 54
Table 17: Assessment of the impacts of the exploration activities on health and safety.....54
Table 18: Assessment of the impacts of the exploration activities on dust generation 55
Table 19: Assessment of the impacts of the exploration activities on noise 56
Table 20: Assessment of the impacts of the exploration activities on archaeological and heritage resources 57
Table 21: Assessment of the impacts of the exploration activities on social environment....58
Table 22: Assessment of the impacts of decommissioning of exploration activity on groundwater 59
Table 23: Assessment of the impacts of decommissioning of exploration activity on employment.....59

APPENDICES

ANNEXURE A: CV_ ANNA MT NEKUTA 65
ANNEXURE B: ENVIRONMENTAL MANAGEMENT PLAN (EMP).....66
ANNEXURE C: LIST OF INTERESTED AND AFFECTED PARTIES.....67
ANNEXURE D: BACKGROUND INFORMATION DOCUMENT.....68
ANNEXURE E: NEWSPAPER ADVERTS 69
ANNEXURE F: EMAIL CORRESPONDENCE 70
ANNEXURE G: SITE NOTICES 71
ANNEXURE H: MEETING MINUTES 72
ANNEXURE I: ARCHAEOLOGICAL DESK ASSESSMENT.....73
ANNEXURE J: CONSENT LETTERS (NATIONAL HERITAGE COUNCIL AND CONSERVANCY) 74
ANNEXURE K: SITE IMAGES.....75

LIST OF ACRONYMS

DEA – Department of Environmental Affairs

EMP - Environmental Management Plan

EA - environmental assessment

ECC – Environmental Clearance Certificate

EIA – Environmental Impact Assessments

EMA – Environmental Management Act of 2007 (No. 7 of 2007)

ESA - Environmental Scoping Assessment

I&AP – interested and affected parties

METF – Ministry of Environment, Tourism and Forestry

MME – Ministry of Mines and Energy

Minerals Act - Minerals (Prospecting and Mining) Act No. 33 of 1992

EXECUTIVE SUMMARY

The EPL 7576 was granted to Cadan Minerals and Resources Close Corporation (the proponent), on 25 October 2019 and expired on 24 October 2022. The EPL envelops a total surface area of about 353.552 hectares. EPL 7576 is situated in the North-western direction of Usakos town, within the Erongo region The status of the EPL is pending renewal, and the license was transferred to (Uis-Chi Investment Namibia Close Corporation) the new proponent during the time of drafting the ESA. The proponent is undertaking the EIA process as a part of the application process for obtaining an ECC for the proposed exploration activities as described in the subsequent chapters.

EPL 7576 is situated in the northwestern direction of Usakos town, within the Erongo region. Access to the area is via the B2 tarred road from Usakos to Arandis than take the D1930 dirt road that passes through the license area. Like for many other developing economies with massive natural resources, the Namibian mining industry contribute about 10% towards the country's GDP in the past years. Furthermore, due to decline in economic growth caused by high unemployment rate and inequality, there is high demand to further explore mineral resources in the country.

The protection of the environmental biodiversity and nature conservation has become a global concern. It has been almost two decades since the government of Namibia gazetted its environmental act (Environmental Management Act, 7 of 2007) that aim to protect the environment and its conservations. According to the Environmental Management Act, 7 of 2007 the project requires an EIA because of the various risks and impacts it may have with the environment. The EIA process is used as a tool for identifying possible environmental and social risks that the project may have and in turn helps in designing an effective EMP that would allow avoidance of the impacts, and where avoidance is impossible help to minimise the impacts or offset. Based on the Environmental Management Act, exploration activities are one of the listed activities that should conduct an EIA, and therefore cannot be undertaken without an Environmental Clearance Certificate (ECC). Accordingly, the proponent is expected to obtain an ECC from the EC before the commencing of these exploration activities.

Given the reason above, the environmental consultant SS Consultants CC, an independent mineral resource and environmental consultancy, was appointed to undertake the Environmental Impact Assessment studies on Exclusive Prospecting License (EPL) 7576 for the mineral exploration activities on behalf of the proponent. The proponent aims to conduct exploration activities on the EPL 7576 for the awarded mineral groups which are industrials minerals, dimension stone, precious metals, base and rare metals mineral..

The project will entail different exploration methods within the EPL. These include field geological mapping, ground electromagnetic and geophysical surveys, drilling, and soil sampling. Since there are numerous previous mining and exploration activities within the EPL area, there will be no need for new tracks, as there are already more present, it is for this reason that it can be ensured that only minimal vegetation may need to be cleared for the installation and development of exploration drill holes. Noteworthy, the duration of exploration activities is preceded to be conducted over the license tenure which is valid for a three (3)-year period, once an ECC has been issued for EPL 7576. Also, the duration of each exploration program will be clarified after detailed geological information is available via a desktop study report. Based on the exploration feasibility and results, exploration operations may potentially steer mining activities and a separate detailed Environmental Impact Assessment for the mining license will be undertaken.

Noting that the Government of Namibia has, over the past year, invested in diversifying its economy, it can still be enlightened that Namibia is a renowned and significant mining jurisdiction home. This shed further light that the country's economic growth highly depends on the mining sector, having that the mining sector accounts for roughly 10 percent of Namibia's GDP every year. The effect of Covid-19 on the global economy has raised the demand to seek for new mineral deposits to boost economic growth through job creation and income generation, skills transfer, etc. Mining is a significant source of revenue for the government as well as a source of foreign exchange. Total job creation in the sector has been volatile due to commodity price fluctuations and technological advancement. As a result, this project will generate employment and development in the surrounding community by creating job opportunities, educational skills, and infrastructure development.

The Environmental Assessment scoping study was carried out in accordance with the Environmental Management Act (EMA) (No. 7 of 2007) and the 2012 Environmental Impact

Assessment Regulations (GG No. 4878 GN No. 30). This was done with the purpose of identifying the potential environmental impacts arising from the proposed activities by doing a risk assessment. Whereas the EIA report and EMP will enable the EC to make sound decisions regarding the exploration activities from an environmental perspective. Once the EC has reviewed the assessment report following this Act; he may issue environmental clearance certificates in terms of this Act as a go-ahead for the proponent to undertake the listed exploration activities. Notably, the proponent must ensure that all the necessary regulations are accounted for by the Minerals (Prospecting and Mining) Act No. 33 of 1992 (Minerals Act) regarding exploration activities.

As aforementioned, the exploration activities will conduct different exploration methods. This will involve both non-invasive and invasive exploration strategies. Non-invasive exploration techniques normally consist of remote sensing, geological field mapping, ground geophysical survey, surface sampling, and so on. while invasive exploration methods consist of more adverse methods of exploration such as reverse circulation or diamond drilling and pitting/trenching. inside the preliminary phases of exploration, non-invasive exploration activities may be undertaken first to define the need for more invasive activities. Should the results from the non-invasive activities be feasible, distinct site-precise drilling, trenching, and sampling could be undertaken.

Apart from the exploration activities, the EA also assessed the vital required infrastructure services for the proposed exploration activities. These are water, electricity, road network, accommodation, and transport. For the safety of the environment, alternative ways in which the project can be employed will be applied. The most common and crucial alternatives considered are the no-go option, location, services infrastructures, and exploration drilling methods. However, for this project, the no-go option was not considered due to the economic impoverishment. Furthermore, in cases where parts of the project are sensitive to the environment, these areas have to be considered and identified as sensitive. It is the presence of the ore mineral potential (geology) in the area that determines the location of the EPL. The EPL location is mainly identified by the geologically specified potential mineral ores in an area. Due to site determination resulting from mineral ores to be explored, which is primarily determined by the site geology and its area specific, no alternative location is considered

viable. Additionally, the author has indicated various alternatives regarding the service infrastructure.

As per the Environmental Management Act 7 of 2007, It is crucial to engage with the public from the beginning of the EIA process. This implies that public consultation is one of the most important components of the EIA process. This is mainly because it creates space for the community and all registered interested and affected parties (I&Ap's) to submit their concerns and input they may have on the project. The assessment and decision-making on the granting of the Environmental Clearance Certificate (ECC) are made considering the comments and concerns of the I&Ap's on the project, as per the 2012 EIA Regulation. The public meeting happened in Uis on 17th of June 2023 at 12h00. The discussion on the activities that are likely to happen around the project provided the ECC is granted was the epitome of the meeting.

The committee stressed on the negative effect the exploration may have on the land. The meeting minutes and the attendance registers are attached in ANNEXURE H. No other comments were received other than the ones noted within the meeting minutes The scoping report was made available to all I&APs for public review from 17th of July 2023 until 24th July 2022. There are also no further comments received on the draft report.

Geologically, the area falls within the south Central Zone of the Damarabelt (Miller, 2008). The sCZ is composed of pre-Damara gneisses and overlying Nosib to Swakop Group rocks of the Neoproterozoic Damara Supergoup (Miller, 2008). The depositional environment of the Damara Supergroup in the sCZ is interpreted to be part of an extensive continental slope, locally segmented by basement highs, developed along the leading edge of the Congo Craton (Badenhorst, 1992; Miller, 2008). On the other hand, the zone is also underlain by Pan-African granites and is host to numerous pegmatite occurrences ranging from thin dykes and sills to large, regionally mappable masses (Miller, 2008). It is composed of metasediment rocks of Kuiseb and karibib Formation; mainly amphibolite schists and dolomitic marbles. Intrusion rocks (pegmatitic granite, and pegmatites) also comprises the area.

Similarly, to any other exploration activities, it is impossible that the exploration activities that will be undertaken within EPL 7576 will not affect the environment in one way or another. Accordingly, it is pivotal that before the project development begins, there is a thoroughly

understanding of the pre-project conditions. It is equally important to form a baseline understanding of the area and make sound conclusions on certain matters that may arise during or after the project's operations. The key biophysical environmental and social baseline for the project area are listed as follows: Climate, Water Resources: Surface and Groundwater, Fauna and Flora, Archaeological and Heritage Resources, Social Environment, Social Demographics, Economy, and Land Use.

As required, it is the crust of the EIA to identify all possible positive and negative impacts that exploration activities may have on the Environment. The impacts are narrowed down below:

Positive impacts:

- Creation of jobs for the locals (primary, secondary, and tertiary employment).
- Identification of potentially mineable mineral resource
- Benefits from Corporate Social Responsibility from Junior mining companies
- Boosting the local economic growth and regional economic development.
- Open up other investment opportunities and infrastructure-related development benefits.
- Skills transfer to all workers.

Negative impacts:

- Disruption to the grazing area
- Land degradation and Biodiversity Loss.
- Generation of dust
- Water Resources Use
- Soil & Water Resources Pollution
- Waste Generation
- Occupational Health & Safety risks
- Vehicular Traffic Use & Safety
- Noise & Vibrations
- Disturbance to Archaeological & Heritage Resources
- Impacts on local Roads

- Social Nuisance: local property intrusion & disturbance
- Social Nuisance: Job seeking & differing Norms, Culture & values
- Impacts associate with closure and decommissioning of small-scale mining works

To ensure that impacts of low significance, and of medium/high are avoided and reduced to low/medium significance rating respectively, there should be a sound EMP with the sets of mitigation measures that are effectively employed. The EMP need to ensure that the mitigation measure set for each identified impacts can effectively minimise such impacts. As part of the EIA process, environmental monitoring should be implemented at a full length of the project, to make sure that all mitigation measures, and contingency plans are properly implemented, and that these measures and plans are effective in addressing (avoiding or minimising) the projects impacts.

In conclusion, it should be considered that the central potential biophysical impact in relation to the pre-operational, operational and maintenance and decommissioning phases of the proposed project activities have been identified and assessed. Appropriate mitigation measures were recommended, and the impacts can be summarised as follows:

- Impacts on biodiversity loss – The possibility of deterioration of vegetation during the site clearing for the proposed exploration activity.
- Impacts on wildlife and domestic animals - The EPL is situated in an area a few wild animals can be spotted, and where domestic animals live for farming. It thus may disturb their roaming patterns.
- Impacts on soil, surface, and groundwater - Improper handling, storage and disposal of hydrocarbon products and hazardous materials at the site may lead to soil and groundwater contamination, in case of spills and leakages. Should the exploration activities be decommissioned, and the excavated areas be rehabilitated groundwater may be polluted if contaminated soils are used.
- Impacts of erosion - Exploration activities may result in erosion from the removal of vegetation which could impact water run-off and loss of topsoil.
- Impacts on waste - Inappropriate discarding of waste materials at the site may result in pollution of the site and resultant environmental degradation.
- Impacts on health and safety - Exploration activities may cause health and safety risks to employees on the site.

- Impacts on dust and noise - Exploration activities may increase dust and noise generated around the site area.
- Impacts on archaeological and heritage resources - The proposed exploration activities may impact areas that could potentially house archaeological and heritage resources. Should these be encountered during the exploration activities mitigation measures need to be in place to ensure that the heritage resources are not impaired.
- Impact on the social environment - The proposed activity may create employment opportunities for the locals. Additional benefits may arise depending on the agreements reached between the communal farmers within the EPL area and the surrounding, and the proponent. Once the exploration activities are decommissioned those employed on a contract basis may get retrenched.

It is recommended that the project receive an ECC, provided the following conditions are met:

- That the EMP be effectively enforced and monitored by the proponent and all appointed consultants.
- The proponent is to consult with the affected communal farm owners before the exploration activities commence.
- That once a target area has been identified all invasive work should be employed according to the EMP.

1 INTRODUCTION

1.1 Project background

The Ministry of Mines and Energy (MME) granted Cadan Minerals and Resources Close Corporation (the proponent) EPL 7576 on the 25th of October 2019 and expired on 24 October 2022. The status is pending renewal, and the license was transferred to a (Uis-Chi Investment Namibia Close Corporation) on 22 November 2022 during the drafting of the ESA. The proponent thus aims at undertaking exploration of industrials minerals, dimension stone, precious metals, base, and rare metals mineral deposits respectively. The EPL 7576 forms an almost square-like shape with corner coordinates listed in Table 1 and covers at total surface area of about 353.552 hectares of land. Therefore, the license holder thus wishes to undertake the EA process and obtain an ECC for the proposed mineral exploration activities on (EPL) 7576.

1.2 Locality

The EPL is located in the north-western direction of Usakos town, within the Erongo region. Access to the area is via the B2 tarred road from Usakos to Arandis than take the D1930 dirt road that passes through the license area. The main land use of the area within and outside the EPL is predominated by state land and other forms of human settlements. Figure 1-1 delineates the locality map for the EPL, and the EPL corner coordinates are depicted by in Table 1.

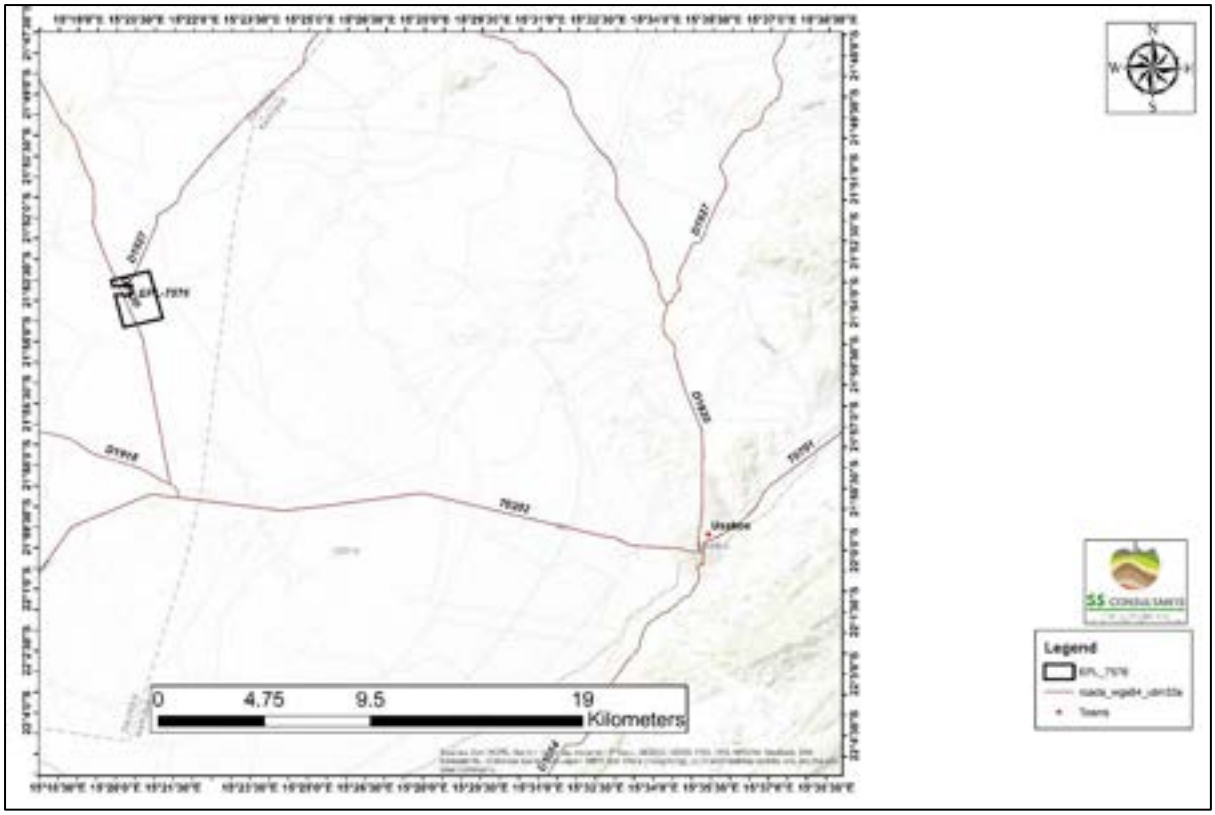


Figure 1-1: Locality map for EPL 7576 in the Erongo Region.

Table 1: Corner coordinated for EPL 7576

	Geographic Coordinates	
	Latitude	Longitude
1	21° 54' 38.90'' S	15° 20' 10.95'' E
2	21° 53' 51.22'' S	15° 19' 57.39'' E
3	21° 53' 53.12'' S	15° 20' 21.59'' E
4	21° 53' 37.90'' S	15° 20' 23.89'' E
5	21° 53' 38.90'' S	15° 19' 54.37'' E
6	21° 53' 40.18'' S	15° 19' 54.26'' E
7	21° 53' 30.57'' S	15° 19' 51.52'' E
8	21° 53' 17.21'' S	15° 20' 50.66'' E
9	21° 54' 25.88'' S	15° 21' 11.86'' E

Table 2: Summary of EPL 7576 location details

Location	North-western direction of Usakos town
Area size	353.552 hectares
Constituency	Usakos District
Regional Administration	Erongo Region
Nearest Town	Usakos

1.3 Need and Desirability of the Project

The Government of Namibia has improved the diversification of it is economy over the past years. However, it is still enlightened that Namibia is a renowned and significant mining jurisdiction home. On this note, it is believed that the country's economic growth still highly depends on the mining sector, having that the mining sector accounts for roughly 10 percent of Namibia's GDP annually (International Trade Administration, 2022). Therefore, The Proponent is committed to contribute to the socio-economic development of Namibia through different industrial sectors, which includes mining. By Adding to the diamond, gold and uranium mining and exploration that have been leading sub-sector of Namibia's mining industry. The proposed prospecting and exploration activities on EPL-6990 has great potential to enhance and contribute to the development of other sectors and its activities provide temporary employment, taxes and levies as well as social responsibilities. Additionally, the industry produces a trained workforce and small businesses that can serve communities and may initiate related businesses. The successful exploration on the EPL would then lead to the mining of economic feasible commodities based on the results of exploration.

the demand to explore other mineral groups i.e. dimension stone (granites, marbles, and dolerite), industrial minerals (lithium, cement), base, rare earth elements (copper, zinc, lead, vanadium, tantalum, niobium, tin), and precious metals (Au, Ag) has been increasing recently to further boost economic growth through job creation and income generation, etc.

Based on the research by Victoria Nambinga and Lydia Mubita (2021), Namibia mining has been the cornerstone of the economy for remote ages in view of having a positive impact on the economy measured through job creation and income generation, among others. It can therefore be consented that mining is a critical source of government fiscal receipt and source of foreign exchange (Walser, 2000). Total job creation in the sector has been volatile due to fluctuation in commodity prices and technological advancement. Therefore, this project will bring about employment and development to the project community and nationally in a sense of creating job opportunities, educational skills and infrastructure development within the surrounding community. Thus contribute towards achieving the goals of the national development plans such as the National Development Plan 5 (NDP5) and Harambee Prosperity Plans (HPPs) I and II. Mining is therefore, essential to the development goals of Namibia in contributing to meeting the ever-increasing global demand for minerals, and for national prosperity. Hence, the need for exploration activities.

1.4 Scope of Work

As per the Environmental Management Act (EMA) (No. 7 of 2007) and its 2012 EIA Regulations (GG No. 4878 GN No. 30), the scoping study is done to identify the potential environmental impacts caused by the proposed exploration project. As per regulation, the proposed project may not be undertaken without an ECC. Therefore, the process has been undertaken as required and guided by the Regulations. Furthermore, the ECC is required by the MME for consideration to renew the expired EPL rights.

Relevant environmental data has been compiled by making use of secondary data from desktop work and fieldwork. Furthermore, EIA report and EMP are the guiding tools that help stakeholders and relevant Ministries to make informed decisions regarding the exploration activities from an environmental perspective.

This Report has been compiled as a required output of an environmental assessment process after the ECC application has been launched with the Competent Authority (MEFT). The ESA Report, together with the EMP and all its appendices will be submitted to the DEAF and MME. The document (Report) covers the following chapters or sections, in addition to the introductory chapter:

Table 3: A summary of the contents covered by the present report.

Description	Section of the Report
Legal Framework: The relevant legislation, policies and guidelines pertaining to the proposed project	Chapter 2
Description of The Project Activities: Overview of the different exploration methods to be undertaken once ECC is granted.	Chapter 3
Alternatives considered for the proposed project in terms of no-go option, location, exploration methods and services infrastructure	Chapter 4
The public consultation process followed (as described in Regulation 7 of the EMA Act) by which the interested and affected parties (I&APs) and relevant authorities are identified, informed of the proposed activity, and provided with a reasonable opportunity to give their concerns and opinions on the project;	Chapter 5
BIOPHYSICAL AND SOCIAL BASELINE: this chapters talks about the geological understanding of the project area and Understanding the impacts of the proposed activities and its effects to the environment and society	Chapter 6
The identification of potential impacts, impacts description, assessment, mitigation measures and recommendations	Chapter 7
Recommendations and Conclusions to the report	Chapter 8
References	Chapter 9

The next chapter will point out the Administrative and Legal framework of MEFT and gives a description of the proposed project and its associated activities.

2 LEGAL FRAMEWORK: LEGISLATION, POLICIES AND GUIDELINES

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 scoping assessment was carried out based on the Environmental Management Act No 7 of 2007 (EMA) and its Environmental Impact Assessment (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 (Minerals Act) with regards to the exploration activities. This Act caters for the reconnaissance, prospecting, and mining for, and disposal of, and the exercise of control over, minerals in Namibia; and provides for matters incidental thereto. Table 3 presents the full list of all applicable legislation identified and conducted during the EIA process:

Table 4: Presents the full list of all applicable legislation identified and conducted during the EIA process:

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Environmental Management Act (EMA) No. 7 of 2007	Necessitate that projects with adverse environmental impacts are subject to an environmental assessment process (Section 27). Details principles which must guide all EAs.	EMA and its regulations should inform and guide this EA process.
Environmental Impact Assessment (EIA) Regulations GN 28-30 (GG 4878)	Details requirements for public consultation within a given environmental assessment process (GN 30 S21). Details requirements for what should be part of the Scoping Report (GN 30 S8) and an Assessment Report (GN 30 S15).	
Minerals (Prospecting and Mining) Act No. 33 of 1992	To provide for the reconnaissance, prospecting, exploration and mining for, and disposal of, and the exercise of control over, minerals in Namibia; and to provide for matters incidental thereto.	The Proponent should ensure compliance with the conditions set in the Minerals Act regarding exploration activities.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
The Constitution of Namibia Act No. 1 of 1990	According to Legal Assistance Centre (LAC), there is no clear right to health in the Namibian Constitution. But based on Article 95 of the Namibian Constitution that deals with Principles of State Policy, the Namibian Constitution states, "the state shall enact legislation to ensure consistent planning to raise and maintain an acceptable standard of living for the country's people" and to improve public health.	The Proponent should ensure compliance with the conditions of the Act.
Water Act No. 54 of 1956	The Water Resources Management Act 11 of 2013 is not yet gazetted; hence, the Water Act No 54 of 1956 is still in force: Interdict the pollution of water and implements the principle that a person disposing of effluent or waste has a duly of care to prevent pollution (S3 (k)). Provides for control and protection of groundwater (S66 (1), (d (ii)). Liability of clean-up costs after closure/abandonment of an activity (S3 (l)).	The safety of ground and surface water resources must be a priority throughout all exploration activities.
Water Resources Management Act No.11 of 2013	The act caters for the management, protection, development, use and conservation of water resources; and provides for the regulation and monitoring of water services and to provide for incidental matters. The objects of this Act are to:	

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
	Certify that the water resources of Namibia are managed, developed, used, conserved, and protected in a manner accordant with, or conducive to, the fundamental principles set out in Section 66 - protection of aquifers, Subsection 1 (d) (iii) provide for preventing the contamination of the aquifer and water pollution control (Section 68).	
Soil Conservation Act No. 76 of 1969	The Act aim to prevent and control soil erosion and to protect, revamp, and conserve the soil, vegetation and water supply sources and resources, through directives declared by the Minister.	At a time of soil sampling soil conservation must be taken care of, and management measures must be part of the EMP.
Nature Conservation Ordinance No.4 of 1975	To centralise and amend the laws relating to the conservation of nature; the establishment of game parks and nature reserves; the control of problem animals; and to provide for matters incidental thereto.	The Proponent should ensure that any activities done in the project area do not in any way trade-off the wildlife and the ordinance requirements are adhered to.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Agricultural (Commercial) Land Reform Act No. 6 of 1995 (Agricultural (Commercial) Land Reform Amendment Act No. 1 of 2014))	To provide for the acquisition of agricultural land by the State for the purposes of land reform and for the allocation of such land to Namibian citizens who do not own or otherwise have the use of any or of adequate agricultural land, and foremost to those Namibian citizens who have been socially, economically or educationally disadvantaged by past discriminatory laws or practices; to vest in the State a preferred right to purchase agricultural land for the purposes of the Act; to provide for the compulsory acquisition of certain agricultural land by the State, for the purposes of the Act; to regulate the acquisition of agricultural land by foreign nationals; to establish a Lands Tribunal and determine its jurisdiction; and to provide for matters connected therewith.	The Proponent should ensure that relevant regulations set under this Act are always adhered to, and that the project does not disturb the roaming of domestic animals from the nearby farms
Forestry Act No. 12 of 2001	The Act cater for the management and use of forests and related products/resources. It provides protection to any living tree, bush or shrub growing within 100 meters of a river, stream or watercourse on land that is not surveyed or even of a local authority area. In such instances, a license would be required to cut and remove any such vegetation. These provisions are only guidelines.	There are shrubs and trees within the proposed site to be explored. The proponent is therefore required to obtain a permit from the Forestry office in

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
		Uis/Swakopmund, to remove protected species.
Atmospheric Pollution Prevention Ordinance No. 11 of 1976	This ordinance sets for the prevention of air pollution.	Measures should be set to ensure that dust and fumes emanating from exploration activities is kept at acceptable levels.
Public Health Act No. 36 of 1919	Section 119 states that "no person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health."	The Proponent and all its employees/contractors should adhere to the provisions of these legal instruments.
Health and Safety Regulations GN 156/1997 (GG 1617)	Details various requirements regarding health and safety of labourers.	
The Regional Councils Act No. 22 of 1992	This Act sets out the conditions under which Regional Councils must be elected and administer each delineated region. From a land use and project planning point of view, their duties include, as described in section 28 "to undertake the planning of the development of the region	The relevant Regional Council are considered to be I&APs and must be consulted during the

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
	for which it has been established with a view to physical, social and economic characteristics, urbanisation patterns, natural resources, economic development potential, infrastructure, land utilisation pattern and sensitivity of the natural environment." The main objective of this Act is to initiate, supervise, manage and evaluate development.	Environmental Assessment (EA) process. The Erongo Regional Council (Karibib Constituency) is the responsible Regional Authority of the area in which the proposed activity will be undertaken, therefore should be consulted for this EA.
Labour Act No. 6 of 1992	Ministry of Labour (MOL) aim to ensure harmonious labour relations through promoting social justice, occupational health and safety and enhanced labour market services for the benefit of all Namibians. This ministry insures effective implementation of the Labour Act no. 6 of 1992.	The Proponent should ensure that the proposed activity does not compromise the safety and welfare of workers.

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
Best Practice Guide: Environmental Principles for Mining in Namibia- Exploration	Outlines the regulatory and legislative requirements for exploration in Namibia. Serves as a guiding framework for the exploration phase of the mining life cycle.	The proponent should be guided by this framework for best practice mining and exploration activities in Namibia.
National Heritage Act (27 of 2004)	Part V Section 46 of the Act prohibits removal, damage, alteration or excavation of heritage sites or remains. Section 48 off sets out the procedure for application and granting of permits such as might be required in the event of damage to a protected site occurring as an inevitable result of development. Section 51 (3) sets out the requirements for impact assessment. Part VI Section 55 Paragraphs 3 and 4 require that any person who discovers an archaeological site should notify the National Heritage Council. Heritage sites or remains are defined in Part 1, Definitions 1, as “any remains of human habitation or occupation that are 50 or more years old found on or beneath the surface”.	The project must ensure that no heritage resources are damaged and/or removed during its operations. All protected heritage resources (e.g. human remains, paintings etc.) discovered, need to be reported immediately to the National Heritage Council (NHC) and require a permit from the NHC

Legislation/Policy/ Guideline	Relevant Provisions	Implications for this project
		before they may be removed and/or relocated.

3 DESCRIPTION OF THE PROJECT ACTIVITIES

3.1 Planned Exploration phases

Prior to undertaking the proposed activities on the EPL (mobilizing to site and undertaking any groundwork), the Proponent will be required to sign land use agreements and consent with the affected landowners / custodian such as the Tsiseb Conservancy. The consents of land use have been obtained from the two custodians and attached hereto as Annexure J. it should be noteworthy that the exploration programmes are based on an iterative, results-driven and phased nature. Therefore, it is not possible at an early stage of exploration to give an exact duration of the exploration activities (Resilient Environmental Solutions, 2019). Moreover, the minerals exploration activities can take up to a maximum of seven years, with different projects at various stages of the exploration phase (Resilient Environmental Solutions, 2019).

The proposed activities will involve a detailed exploration activities on industrials minerals, dimension stone, precious metals, base and rare metals on exclusive prospecting EPL 7576. This will demand both non-invasive and invasive exploration methods. Non-invasive and invasive exploration methods will be applied during the exploration activities. Non-invasive exploration methods aim at geological desktop studies, aeromagnetic and remote sensing image processing and interpretation, geological field mapping, ground geophysical survey, surface rock and soil sampling. Conversely, invasive exploration methods are more about destructive methods of exploration such as reverse circulation or diamond drilling and pitting/trenching. Non-invasive exploration activities will be undertaken first to expound on whether more invasive activities are needed or not. Should non-invasive exploration techniques yield positive results, detailed site-specific drilling, trenching, and sampling will then be undertaken.

The application of the proposed exploration activities will be divided into three phases. The first phase will shed light on the initial desktop exploration activities, tailed by phase two which will focus on the initial reconnaissance field-based exploration activities, and the final stage of exploration will be on detailed field-based activities.

Phase 1: Desktop study and prospecting activities

The description of the proposed desktop and prospecting activities to be implemented by the proponent are described as follow:

- Continuous engagement with the relevant authorities to obtain land access to the license area,
- Detail study and thoroughly understating of the infrastructure needed in support of the project and socioeconomic environment.
- Interpretation of satellite and topographic images to initiate target area for field reconnaissance work,
- Purchase, process, and interpretation of existing Government high aerial hyperspectral, resolution magnetics and radiometric geophysical data.
- Interpretation of all data and delineating of potential targets for future reconnaissance local 1:5000 field-based activities.
- This phase is completely on desktop studies and no invasive work will be conducted at this stage of the proposed exploration activities which will take about 3 months.

Phase 2: Initial Field-Based Activities

This phase will entail different methods of exploration as revealed in the previous sub-section. However, most invasive methods like trenching, pitting, sampling, and drilling will only be employed depending on the findings of phase 1?

Phase 2 of the project will execute the following:

- Detailed geological mapping with the focal point of identifying the rock units on the subsurface of the license area, targets based on the results of the first phase of exploration analysis undertaken. The geological mapping is to be conducted at a scale of 1:5000.
- Geochemical sampling pinpointing feasible drill targets based on the analytical results of the collected samples. Sampling is to be conducted at a spacing of 100m*500m
- Laboratory analysis of all the samples collected and interpretation of the results and delineating of potential targets for further infill sampling.

This phase will take up to 12 months, and will give insight depth information, based on the results as to whether the minerals available within the area are economical viable or not, and whether to continue with phase three (3), which is the last phase of exploration or not.

Phase 3: Detailed Field-Based Activities

This phase demands detail exploration activities.

Provided the economic and viable targets are found, the following detailed outline of the proposed local field-based exploration activities will be implemented as per the EIA report.

- Access preparation and related logistics to support activities.
- More geochemical sampling infills to help in confirmation of the prospectively of the target/s mapped out during the initial field-based activities.
- Ground geophysical survey, trenching, drilling, and trenching/pitting (Subject to the positive outcomes of the previous points).

To further assess the economic viability of the target/s, it may require an extension of the scope and scale of the possible field work. Additionally, the type of drilling method (RAB, RC, or Diamond drilling) to be applied will be chosen based on the type of material onsite whether its consolidated or not and also based on the expected. Any drilling method opted for usually only requires truck-mounted rigs and one or two support vehicles to transport the drill rods and air compressor (NSW Mining, 2013).

3.2 Infrastructure and Services

The infrastructures and services are a vital part of the project and hence are included in the EIA process. These include water, electricity, roads network, accommodation, and transportation. It is worth noting that phases 1 and 2 will require very limited infrastructures and services, and this means only phase 3 will require most of these services daily.

3.2.1 Water

Water will be required during phase 2 and 3 exploration related activities such as: ground geophysical surveys, dust suppression, washing of equipment, drilling, domestic (drinking, cooking, and ablution). For exploration related activities such as cooking, drinking and personal use, about 300 litres of water will be required per week (1,200 litres per month). Exploration drilling, specifically diamond requires a lot of water, and it would require approximately 10,000 to 25,000 litres (10 to 25m3) per day, in instances where for example fractured formations are encountered) per hole during drilling A few communal farms have been observed in surrounding areas. The main source of water is borehole water which is located a few kilometres away from these farms. The water is drawn via water pipes from the borehole to the nearby farms. If sufficient, with the agreement between the proponent and the farmers, water can be drawn from these nearby communal farms water tanks, or deployed in from the Namwater water facility from the UIs municipality. Water will be sourced from existing boreholes on nearby farms and piped to the operating sites, subject to necessary agreements with landowners. Alternatively, water could be sourced from the Uis Municipality. To ensure that the already low potential local groundwater resources are not stressed or significantly impacted by the project activities such as drilling, the Proponent will be carting water from outside the area (where water supply is not an issue). The water will then be stored in relevant industry standard water storage tanks onsite that will be refilled as and when necessary.

3.2.2 Power

Currently, the farmers and workers in the EPL surrounding use solar and diesel generator as their power source. However, with the world transitioning to clean energy, the project is looking into using more solar energy resources as a source of power needed during exploration activities to contribute to the country's net zero goals by 2050. However, provision for days when renewable resources are not available should still be made, and in such cases, a diesel-powered generator will be on standby to power the project during times of load shedding. The minimal usage of the diesel-powered generator will ensure the reduction of carbon emission footprint into the atmosphere, which in turn will mitigate global warming.

On the other hand, various machinery and equipment required for drilling have their own power supplies and or generators attached. Fuel (diesel) will be stored in small mobile bowser where needed. The drill rigs will be refuelled either with Jerry cans or directly from the bowser.

3.2.3 Road Access

Due to the amount of geological work done within the area, there are a few numbers gravel road that pass through and close to the EPL area and quite several existing car tracks. Hence, the same roads will be used to have access to the EPL. All the access routes to the exploration's sites (or target areas) have not yet been determined, however, the shortest route is usually the preferred option. Furthermore, although the area has sparse vegetation, if new access routes will be created across the area, they will cause additional impacts to the environment (I.e., dust, general disturbance to biodiversity, visual impacts, etc.). Instead of this approach, to minimise the clearing of vegetation and other potential impacts, existing tracks can be utilized.

3.2.4 Contractors' Accommodation

The project will make provision for a decent campsite for the contractors at suitable locations within the EPL boundaries in line with the EMP objectives. The size of the exploration camp will occupy a limited space during the exploration phases but might be extended in case the project carries on with the test mining and mine development phases. This will, however, only happen in an event of a discovery of economic minerals resources. There temporary toilet facilities will be availed at the camp, and a temporary transportable dumpsite will be created to ensure the exploration site is clean and tide.

3.2.5 Transportation

The first two phases of exploration will require limited transportation. Hence, 4 by 4 pickups will be used for the everyday exploration activities. For the last phase (phase 3) transportation will range from trucks and drilling machines, to 4 by 4 pickups. The trucks will be used to supply the exploration activities with water if needed. To avoid major road damages, water trucking will be done once or twice a month. The 4 by 4 pickups will be used for everyday

exploration activities, whereas the drilling machines will be stationed at the site being drilled and only moved when moving to the next drilling site.

3.2.6 Domestic and hazardous waste

The Domestic wastes are to be disposed in the most appropriate manner. This will be done by stationing numerous waste bins onsite that will be emptied on a regular basis. Since there is not landfill recorded within the EPL area, the alternative to transport the waste to Usakos landfill will be considered, to the nearest communal farms landfill if there is any. The latter option will prevent an everyday drive from and to Usakos for waste disposal, which can cause road damages.

Moreover, hazardous waste generated is to be taken to and disposed off at an appropriate facility in the nearest town (Usakos) equipped for the disposal of hazardous waste to ensure that the area is not polluted.

3.2.7 Resources and Working Team

Quality work gives rise to quality result. This implies that the success of the resources being sought for depend on the quality of work done in the area. To ensure sound work, and that the resources being explored is well defined, various geological consultants, and contractors will be contracted during different exploration phases. Previously mentioned, various exploration methods will be applied, and each method's results determine the next exploration phase. Therefore, a geophysics expert will potentially be employed during exploration to conduct geophysical surveys and determine whether it is on the ground or air. Additionally, drilling will be employed by an appointed drilling contractor, and it is expected that they will have their own drilling crew. Furthermore, temporary employment will potentially be availed for graduate Geologists (2 positions) and Technicians (4 positions) for to conduct geological mapping and geochemical surveys. The nearest populated town is Usakos, and that is where unskilled labour will be employed from. It is anticipated that the workforce will be housed in temporary site camps throughout the exploration activities.

3.2.8 Site Access

The access to the EPL 7576 area is via the B2 tarred road from Usakos to Arandis than take the D1930 dirt road that passes through the license area. There is one farm identified within the EPL area.

3.2.9 Health and Safety

The following measures will be implemented onsite to ensure safety and security:

- Adequate and appropriate Personal Protective Equipment (PPE) will be provided to every project personnel and visitor/inspector while on and working at site and visiting the site, respectively.
- First aid: A minimum of two first aid kits will be readily available at exploration and camp sites to attend to potential minor injuries, while major injuries will need to be attended to further by transporting the injured to the nearest health centre for treatment. At least 2 personnel will be trained on administer first aid.
- Potential Accidental Fire Outbreaks: As a control measure for accidental fire outbreaks, a basic firefighting equipment, i.e., a fire extinguisher will be readily available in vehicles, at the working sites and campsite (accommodation units). The site personnel will be trained on and provided with firefighting skills.
- Open exploration trenches and boreholes: The trenches dug for sampling will be temporary fenced off to prevent potential injuries of mainly wildlife in the area. Once sampling is completed, the trenches will be progressively backfilled and levelled and fencing removed for storage or donation to the land custodians for the communities. Similarly, for exploration boreholes that are no longer required after rock samples, they will be backfilled and closed off.

Warning signage at hazardous site areas such as open trenches will be erected.

4 PROJECT ALTERNATIVES CONSIDERED

Alternatives are defined as "different means of meeting the general purpose and requirements of the activity" (Environmental Management Act (2007) of Namibia and its regulations (2012)). In this chapter, different ways of undertaking the project, as well as identification of the alternatives that, in a practical way, can be employed to ensure avoidance or minimal damage to the environment are pointed out and discussed.

The most common and most important alternatives identified and considered are the no-go option, location, services infrastructure, and exploration drilling methods. These alternatives are discussed as follows.

4.1 No-Go Option

The "No-Go" alternative refers to the option of the project not going ahead. The application of this option means that any activities proposed for the EPL area will not be executed, and hence none of the potential impacts (positive and negative) identified would occur. Additionally, employing this option implies that the potential mineral ores present will remain unidentified. With the No-Go option, the key losses that may never be realized if the proposed project does not go ahead include:

- Loss of insight geological understanding of the site area regarding the targeted commodities.
- Loss of potential income to the local and national government through land lease fees, license lease fees, and various tax structures.
- Loss of foreign direct investment.
- Potential employment opportunity is curtailed; hence, there will be no local, regional, and national economic contribution from the project.
- Socio-economic benefits such as skills acquisition to local community members would be not realized.

Considering the Key losses above, the "No-Go" alternative was not an option for the project. However, in the case where the project causes irreversible adverse residual impacts at some sites or where certain sites within the EPL area are environmentally sensitive and/or protected, the "No-Go" option will be applied in these areas.

4.2 Project Location

The EPL area has been explored and mined before. The potential industrial minerals, dimension stones, precious metal, and base and rare metals in the area have attracted both artisanal miners and large-scale mining in the area. The economic deposit within the EPL area is then linked to the local and regional geology of the area. The Proponent intend to explore / prospect for the licensed minerals groups likely to be associated with the regional and local geology.

As mentioned earlier, there are communal farmers and other exploration and mining activities happening within the area. For this reason, access to infrastructure electricity, communication and water supply will relatively well be accessible as mentioned by the use of Renewable resources and/or from the nearby communal farms (see the locality map on figure 3).

Figure 4-1: Location map for EPL 7576 with corner coordinates

The EPL is demarcated by nine corner coordinates (Table 1) and covers an area of 353.552 hectares. It is within an expired mining area which mined precious and industrial minerals. The area is state-owned and there is no farm within the EPL area, however, a few communal farms are noticed in the nearby areas. It is worth noting that there are no archaeological

paintings are spotted in the area, however, an archaeological grave has been spotted, and the archaeological report will focus on this.

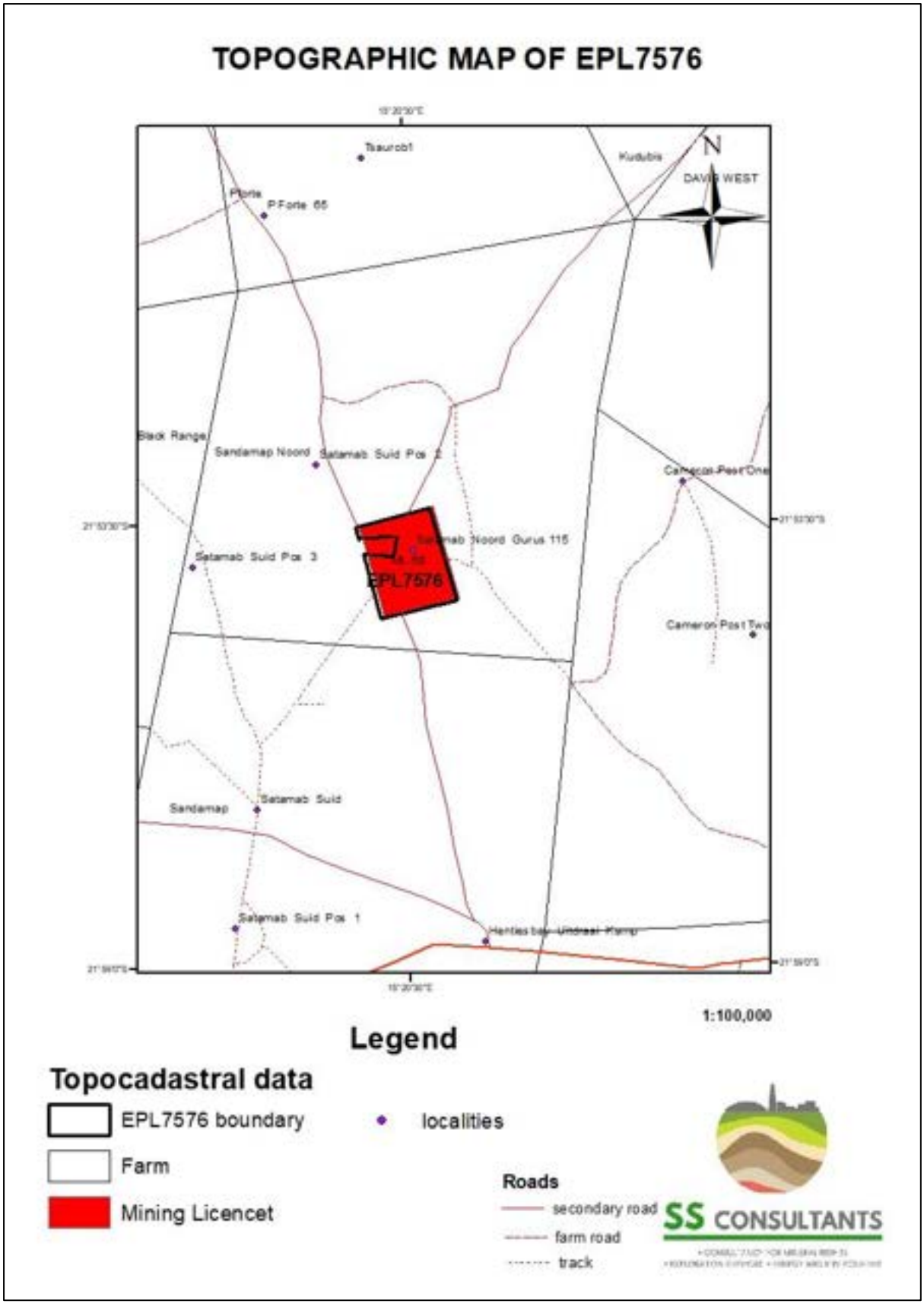


Figure 4-2: Map showing the location of EPL 7576 in relation to existing farms.

Noteworthy, the location of the EPL is mainly identified by the potential mineral ores in an area, geology specific. Due to the site determination resulting from mineral ores to be explored, which is area specific and primarily determined by the site geology, no alternative location is considered viable.

4.3 Services Infrastructure

For every exploration activity, especial in the final stages, the projects require services infrastructures. Similarly, this project will need certain services for it to run effectively. These services have been identified and table 3 below presents the alternatives for the identified services.

Table 5: Alternatives considered in terms of services infrastructure.

Services	Proposed source	Alternative source
Water	Obtaining water from the communal farms' sources within the EPL or from Uis. The proposed source will be used to ensure that the project will not generate depletion on the water level/availability of the sources that the local community uses.	Hauling water from the nearest NEWater pump station near the project or from Uis with permission from the municipality and local authority.
Power for equipment	Diesel power generators will be used to power the project.	Alternatively, the project will put up solar panels on site, to ensure that it does not entirely depend on the generator for power. The solar can be used for instance, cell phone charging and lighting.
Power for cooking and lighting for the campsite	For cooking purposes, Gas stoves will be used during the project activities. Using gas stove ensure that the contractors will not use any firewood from the area which would increase deforestation. Lighting system for the campsite	Firewood (purchased from permit holding suppliers) will be used in cases of emergencies (for instance when the gas is unexpectedly fished). Gas lamps will be an alternative lighting source.

	will be via portable solar lamps that will be erected on site.	
Workers' accommodation	A temporary limited-sized campsite will be constructed within the boundary of the EPL. The campsite will be developed in the EPL area that is far from the close by farms to minimise noise pollution.	In cases where there is an absence of a suitable site for a camp, accommodation in the nearest town i.e. Uis will be an option. The workers will be accommodated at any facility with the necessary ablution and electricity infrastructure.
Waste Management		
Sewage	Portable toilet – these are easily transportable and have no direct impact on the environment and ecology (if properly disposed). These are chosen at the drill sites.	
Domestic waste	Onsite waste bins, regularly emptied at the nearest landfill is the chosen option. This will prevent an everyday drive from and to the nearest town for waste disposal, which can damage the road and disseminate dust within the area.	Driving waste to the nearest town landfill which is Uis is an alternative, but not viable as it can result in road damaging.
Drilling waste (chemicals)	Waste generated is to be transported to and disposed of at an appropriate facility in the	In cases of emergencies, organic chemicals will be used.

	nearest town equipped for the disposal of hazardous waste to ensure that the area is not polluted.	

5 PUBLIC CONSULTATION

5.1 Objective

It is one of the EIA's objectives to ensure that public consultations are done from the very beginning of the EIA process and throughout the project's life cycle. Public engagement is therefore a ground that opens opportunities for all the I&AP to comment on and/or raise their concerns and apprehensions regarding the proposed project. All raised comments and concerns are considered as an important part of the assessment process as per the EMA and its 2012 EIA Regulations and must therefore be included in that final scoping report and used as one of the determinant factors in the ECC decision making.

Furthermore, to ensure that possible social risks of project activities are identified, it is important to share information about the project at an early stage with the I & AP and hold consultations to discuss such risks. Customarily, the public knows their community better than anyone else thus, their input adds value to the identification of all potential impacts and to what extent further investigations are needed. Also, public consultation aids the process of identifying possible ways of impacts monitoring and mitigations measures.

5.2 Approach

The process for the public participation is shepherd by the public consultation definitions and guidance given by the MET as per the regulation 21 of the EIA.

a) Interested and Affected Parties (I&APs)

   Relevant and applicable national, regional, and local authorities, and other interested members of the public were identified. Pre-identified I&APs were contacted directly via email and telephonically, while other parties who contacted the Consultant after project advertisement notices in the newspapers, were registered as I&APs upon their request.

   I&APs are the people who are affected by the project development, directly and indirectly. These are considered interested in and/or affected by the proposed exploration activities. In addition, more I&APs were added to the stakeholders list as

they registered for the project, in response to the invitations for public participation. The complete list of I&APs is provided in Annexure C.

b) Communication with I&APs

Regulation 21 of the EIA Regulations details the process that should be undertaken during a given public consultations and this has been used in guiding the public consultation process. Communication with I&APs about the proposed development was facilitated through the following means and in this order:

c) A Background Information Document (BID) containing descriptive information about the proposed exploration activities was compiled (ANNEXURE D) and circulated with both pre-identified and registered I&APs between the 26th of October 2022 to 22nd of February 2023.

d) Advertisements were placed in the Republikein Newspaper in the Market Watch section on the 20th of October 2022 and 27th of October 2022, and in the Confidante newspaper dated 21th and 27th October 2022. The aim was to notify the public about the project by briefly explaining the activities to be conducted and its locality. (ANNEXURE E).

e) A site notice was fixed at Usakos Police station and the Small scale market (see Annexure G).

5.3 Public consultation

Communication with I&APs about the proposed development was facilitated through the following means. Below is subsequence of events that followed and in this order:

a) The first public consultation meeting was scheduled for 5 November 2022 as per the Newspaper advertisements (Annexure E).

b) It was then postponed due to the Paramount Gaob of the ≠Nukhoen/Damara which was hosting the annual Gaob Festival in Okombahe from the 4th to the 6th of November 2022.

c) A consultation with the affected parties was than scheduled for 17th June 2023.

During the meeting, the environmental practitioner discussed the main reason for the environmental impact assessment, and why it is being done in the area. The exploration

activities that are likely to happen in the area provided the Environmental Clearance Certificate is granted have been discussed, including the impacts, they will have on the area. The scoping report was made available to all I&APs for public review from 20th of July 2023 until 27 July 2023.

Figure 5-1: Public consultation meeting in Uis on the 17th June 2023.

The participants stressed on the negative effect that the exploration may have on the land. The meeting minutes in Annexure H. No other comments were received other than the ones noted within the ANNEXURE H. There are also no further comments received on the draft report.

The main concerns expressed by the I&AP during the consultation meeting are summarised below:

a) How will their farmers be accommodated and well alerted before hand
b) Pollution from the exploration companies
c) Employment should be provided to the community members
d) The members had concerns about their small scale miners and how they will be affected

e) The members of the committee asked that they be given sometime so that they may be able to talk to the affected farm owners within the area so that there can be some sort of agreement and arrangement.

The environmental baseline (features) of the project area and the surrounding areas are presented and discussed in the following chapter.

6 GEOLOGY, BIOPHYSICAL AND SOCIAL BASELINE

6.1 Geology

6.1.1 Regional geology

On a regional level, the area is geologically part of south Central zone of the Damara belt of the central Namibia. The sCZ is composed of pre-Damara gneisses and overlying Nosib to Swakop Group rocks of the Neoproterozoic Damara Supergoup (Miller, 2008). The depositional environment of the Damara Supergroup in the sCZ is interpreted to be part of an extensive continental slope, locally segmented by basement highs, developed along the leading edge of the Congo Craton (Badenhorst, 1992; Miller, 2008). On the other hand, the zone is also underlain by Pan-African granites and is host to numerous pegmatite occurrences ranging from thin dykes and sills to large, regionally mappable masses (Miller, 2008)

The tectonic and lithostratigraphic evolution of the CZ in the Damara Belt originated with Neoproterozoic intracontinental rifting between the Congo and Kalahari Cratons. Deposition of rift-type sediments and metavolcanic rocks of the lower Nosib Group, the Etusis Formation, has been constrained to between 746 ± 2 and 756 ± 2 Ma by Hoffman et al. (1996) corresponding to the age of 752 ± 7 Ma obtained by de Kock et al. (2000) for volcanic rocks within the Etusis formation.

6.1.2 Local geology surrounding EPL 7576

The EPL area is composed of metasediments of lower Kuiseb, Onguati and Karibib formation; Amphibolite schist, Dolomitic marble, and intrusive rocks which are mainly pegmatite granites, and pegmatites.

6.1.2.1 Amphibole Schists

The amphibole schists of the area appear on the western part and made contact with the dolomitic marble. The rock is mainly medium grained and dark grey to black in colour. It consists essentially of quartz, feldspar, and hornblende.

6.1.2.2 Dolomitic Marble

The dolomitic marble of Karibib formation forms low ridges or hills and it is pervasively foliated, showing evidence of extensive deformation during regional tectonic and associated intrusive activity. The vertical to sub-vertical foliation in the area strikes in a N.E.-S.W. direction. The is no colour uniformity, and hence colour varies between whitish-grey to bluish-grey, and range from fine to coarse crystalline texture respectively.

Narrow inclusions of biotite-muscovite schist can often be identified in the dolomite, with thin bands of white granular biotite quartzite that appear at the contact zone between the dolomite and the granitic rocks of the area.

6.1.2.3 Pegmatite granites

The large body of very coarse pegmatitic granite is found in the area at the contact with a migmatite zone. The rock is light pinkish in colour and likely to be composed of 65% pink feldspar and 35% white to clear quartz. The mafic content of this unit is very low, consisting primarily of hornblende crystals up to 2cm. The unit gets coarser grained moving toward the east.

6.1.2.4 Pegmatites

Apart from the dolomitic marbles, all other rock types in the area are intruded by irregular and patchy coarse pegmatitic bodies. They are essentially composed of very coarse microcline feldspar and quartz. Tourmaline is a common constituent towards the west, with hornblende becoming predominant toward the east. Generally, the pegmatites are small and show only simple zoning with quartz-feldspar-tourmaline- hornblende wall zones and quartz-feldspar.

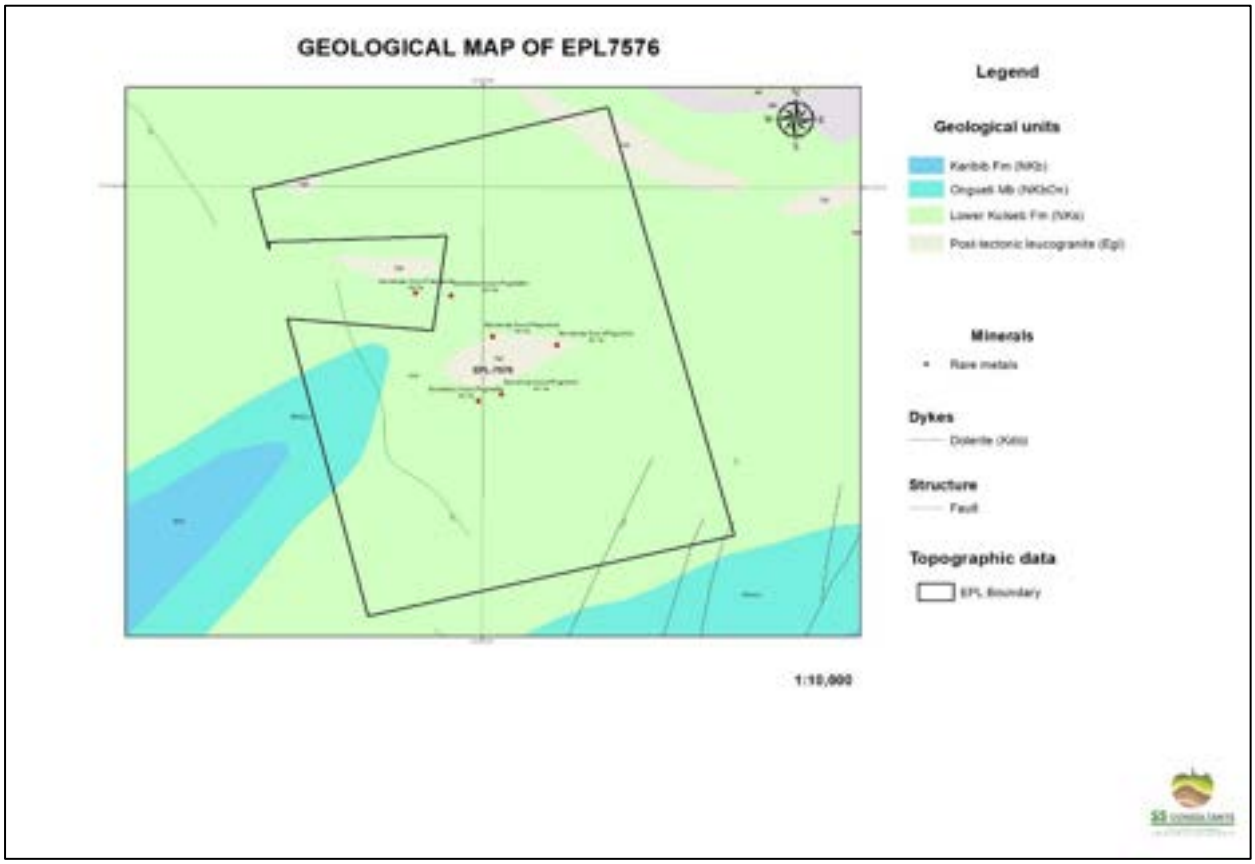


Figure 6-1: Local geology map around EPL-7576.

Table 6: Generalized Stratigraphy of the Damara Supergroup within the sCZ (modified from Badenhorst, 1992; Miller, 2008).

	Group	Formation	Description	Thickness	Age
DAMARA SEQUENCE	Swakop	**Kuiseb**	Quartz-biotite-cordierite schist and turbiditic metapsammites	40 to >3300 m (Smith, 1965. Badenhorst, 1987).	
		Karibib	Grey and white calcitic and dolomitic marbles with intermittent calc-silicate felses and marble breccias	Up to 1000 m	
		Ghaub	**Daheim Member**- Amphibolites- occasionally within a carbonate matrix	0 to 120 m (Badenhorst, 1992).	635.5±1.2 Ma (Hoffman

					n et al., 2004)
			Glaciomarine pelites, psammites and dropstone units	0 to tens of metres	
		Arandis	**Oberwasser Member**- Grey quartz-biotite-tremolite-cordierite schist and calc-silicate felses	50 to 700 m (Badenhorst, 1987).	
			Okawayo Member- Blue-grey dolomitic and calcitic marbles and calc-silicate felses, intercalated calc-silicates	ca. 100 m thick	
			Spes Bona Member-Quartz-biotite schists and meta-psammites.	20 to >600 m (Badenhorst, 1992. Steven, 1993).	
		Chuos	Glaciomarine diamictite.	0 to 700 m (Henry et al., 1986)	746±2Ma (Hoffman et al., 1996)
		Rössing	Interbedded marbles, calc-silicates, and siliciclastic rocks	Possibly 0 to 150 m. Highly variable	
	Nosib	**Etusis**	Quartz-arenites.	0 to 3500 m (Smith, 1965; Miller, 1983; Lehtonen et al., 1996).	756±2 Ma to 746±2 Ma (Hoffman et al., 1996)
Abbabis Basement			Pink and grey quartzo-felspathic augengneisses, schists, amphibolites and pegmatites		1925±330 Ma (Jacob et al., 1978)

6.2 Landscape and Topography

In the Erongo Region the land rises steadily from sea level to about 1000 meters across the breadth of the Namib. The Erongo Region also hosts Namibia's highest mountain, Brandberg (2,579 m), lies in the far northern part (Geological Survey of Namibia, 2012). Furthermore,

although mountainous, the EPL area is occasionally covered by dune sand. On the other hand, the western part of the EPL is bounded by the Swakop river. It should however be indicated that the area of the EPL is flat with no mountains.

Figure 6-2: Images showing EPL 7576 Landscape and Topography. The images were taken during the site visit.

6.3 Biophysical Environment

The proposed exploration activities undertaken in an environment with specific conditions always have impacts on the environment. It is in this regard that the EIA process requires an assurance that prior to the project commencement, there is a thorough understanding of the pre-project conditions. Additionally, it is also important to ensure that a baseline understanding of the area is formed and to make effective decisions on certain issues that may come up through or after the project's operations. The next subchapters present the environmental and social baseline for the project area.

6.3.1 Climate

The Usakos town and its surrounding is located at an elevation of 869.26 meters above sea level, and has a Subtropical desert climate. The district's yearly temperature is 20.47ºC and it is -3.99% lower than Namibia's averages. Usakos typically receives about 9.71 millimetres of precipitation and has 19.13 rainy days annually.

6.3.2 Water Resources: Surface and Groundwater

The area being very dry there are no observed surface water around the area except the ephemeral Khan river which is a tributary to the Swakop river, that passes through. Also, small tributary from Khan river is noticed in the EPL area. These water bodies are dry all year, except during rainy seasons (October- February). According to the report written by Namwater on Usakos water scheme supply, the Usakos town and its surrounding is supplied by three boreholes (WW 35033, WW 34585 and WW 34585) and two water wells. The water wells are in the Khan River, the one is known as Old Dardanelle with 1 submersible pump installed while the second is known as New Dardanelle with 4 submersible pumps installed. The boreholes pump water into two concrete ground reservoirs with a capacity of 3 000 m^3 and 1 125 m^3 respectively as well as into a tank set consisting of 4 of 5 m^3 HDPE tanks. The tank set is elevated to a height of approximately 10 m. The water is distributed from the ground reservoirs into the reticulation system. The boreholes are between 18 m and 73 m deep.

6.3.3 Fauna and Flora

Based on the Fauna and Flora research done by Branch, B. 2008, the common species in the area are endemic reptile species which accounted for 43%. These species are commonly can be identified as Stigmochelys pardalis; pythons – P. anchietae and P. natalensis–Varanus albigularis and some of the endemic and little known gecko species – e.g. Pachydactylus species. Tortoises, snakes and monitor lizards are ussually killed for food or as perceived threats. The project area is also comprises sparely mature Namibian common Acaccia trees and shrubs, knowns Prunus Fasciculata, Faidherbia Albida, Acacia Fleckii , and Acacia Tortils. The endemic grass – Eragrostis omahekensis is believed as the most important species potentially occurring in the general area.

Figure 6-3: Prunus Fasciculata

Figure 6-4: Faidherbia Albida

Figure 6-5: Acacia Fleckii

Figure 6-6: Acacia Tortils

6.3.4 *Archaeological and Heritage Resources*

The entire Erongo region is archaeological sensitive. Hence, the EIA process of the listed activities requires a detailed Archaeological Impact Assessment (AIA). This is as per the National Heritage Act No. 27 of 2004 and the Environmental Management Act No. 7 of 2007.

The EIA consultant has then appointer OTAH and ESM Cultural Heritage Consultants (JV) to provide an archaeological/heritage assessment for EPL 7576.

The main focus of the archaeological survey and assessment was to identify and capture all sensitive archaeological sites within the limits of EPL 7576 that could be negatively affected by the exploration activities of the proposed project. The assessment also intended to establish heritage significance of possible resources and assess their vulnerability. It also aims to estimates the extent of the possible impacts and establish mitigation measures.

The AIA has, therefore, been conducted the EPL 7576 to reach the following objectives:

- To identify, note, and digitise cultural/ archaeological materials and sites within and around the project area.
- Assess the nature and extend of risks and impacts the exploration project will have on heritage resources.
- To suggest possible conservation strategies for the cultural heritage resources, present in the EPL area which can be destroyed in the course of the project activities.

The AIA has been submitted to the Heritage counsel, and the counsel has issued the proponent with a consent letter. See ANNEXURE J.

6.4 Social Base

6.4.1 Social Environment

The EPL is closest to Usakos town. The tow a low population and has three schools (one primary, one junior, and a secondary school). The settlement has one private doctor facility as well as a public health clinic. Most people within the town are mine workers, with a few civil servants. Though of a low population, the town is known for its highest unemployment rate in the region. On the outcast of the town are a few communal and commercial farmers who depend on their communal and commercial land for food and wages.

The exploration project will not have any negative impact on the social environment; however, it will bring about positive social impacts once the economic mineral resources are discovered within the area. These include job creation and Usakos economic development, to mention a few. Although there may be issues associated with current land uses such as

heritage, conservation, communal farming, and tourism activities being undertaken within the area, the project will ensure successful implementation of the EMP and hence will have minimal negative impact to the activities.

6.4.2 Social Demographics

Based on the census done by the UNESCO Institute of Statistics in 2020, the total population of Usakos is 9100. The town was formed in the early 1900s and was used as a workshop and watering station for locomotives. It was also recognised for the mining activities around the area, however started fading when the mining activities slowed down, until the discovery of industrial minerals in the 1960s (Miller, 2008).

6.4.3 Economy

There are not much economic activities happen in Usakos town, except that many people in town works in a gold mine that is situated in Karibib, and in the exploration projects happen on the outcast of the town. Other income sources recorded include farming, civil jobs, and businesses. For the farmers in the vicinity of the EPL, farming is their main source of income.

Extrapolating from the national unemployment statistics, the town has an unemployment rate that is above 50% and youth unemployment rate of 52% (Namibia Central Bureau of Statistics, 2019).

6.5 Land Use

The main land use in Usakos and its vicinity are light industry, farming, and mining (Ministry of Agriculture Water and Rural Development, 2011). Although there is mining and quit several exploration activities happening in the area, it must be known that the areas around Usakos is mostly used for communal farming and the farmers depend on their live stocks for survival.

7 IMPACTS IDENTIFICATION, DESCRIPTION AND ASSESSMENT

7.1 Impact Assessment

This chapter showcases the assessment and identification of the residual impacts that the project may cause on the environment, that have a high chance of being permanent. To assess and identify these impacts, some certain quantifiable aspects of these impacts must be listed and addressed. It is the assessment and the identification of these impacts that make it possible to draw up a sound and effective mitigation measures to minimise the immensity of the impacts that the proposed mineral exploration will have on EPL 7576.

Apart from the environmental impacts, the proposed activities are usually associated with further potential positive and/or negative impacts. The environmental impact usually focuses on the negative impacts of the project, to make certain that the impacts are properly addressed with competent mitigation measures are in place. This will ensure that the impacts' significance is under control, while enhancing the positive impacts during the project activities. The potential positive and negative impacts that have been identified from the exploration activities are listed as follow:

Positive impacts:

- Employment opportunities for the locals (primary, secondary, and tertiary employment)
- Discovery of potential mineable mineral resource
- Local, and regional Socio-economic development through mining activities
- Open other investment opportunities and infrastructure-related development benefits.
- Enhance local content through skill transfer.

Negative impacts:

- Disturbance to the grazing area

- Land degradation and Biodiversity Loss.
- Generation of Dust
- Water Resources Use
- Soil & Possible Water Resources Pollution
- Waste Generation
- Occupational Health & Safety risks
- Vehicular Traffic Use & Safety
- Noise Pollution
- Disturbance to Archaeological & Heritage Resources
- Impacts on local Roads.
- Social Nuisance: local property intrusion & disturbance
- Social Nuisance: Job seeking & differing Norms, Culture & values.
- Impacts associated with the closure and decommissioning of small-scale mining works.

The identified and evaluated impacts were assessed qualitatively, based on their chances of occurrence, scale/extent (spatial scale), magnitude (severity), and duration (temporal scale). Certain biophysical and social characteristic will be impacted by the proposed exploration activities. The risk magnitude rate with numerical values has been used to facilitate a scientific approach. This has been presented in Table 7, Table 8, Table 9, Table 10, and Table 11. This proposal determines the environmental impact significance. The technique ensures consistency and that potential impacts are addressed in a rational manner, allowing a wide range of impacts to be compared.

When the significance of the magnitude of the identified impacts is known, it is granted that the risks that come with the impacts can be easily predicted. Each potential impact will be subjected to the following process:

a) Provision of a concise explanation of the impact.

b) Assessment of the pre-mitigation significance of the impact and
c) Description of prescribed mitigation measures.

The environmental and socially sustainable operational conditions can only be effectively attained given that the mitigation measures assigned to each potential impact identified, is executed sufficiently, and monitored throughout the project life cycle.

The following criteria were applied in this impact assessment:

7.1.1 Extent (spatial scale)

Extent reveals the physical and spatial scale of the impact. Table 7 shows rating of impact in terms of extent of spatial scale.

Table 7: Extent or spatial impact rating

Low (1)	**Low/Medium (2)**	**Medium (3)**	**Medium/High (4)**	**High (5)**
Impact is within the site boundary: Site only	Impact is beyond the site boundary: Local	Impacts felt within adjacent biophysical and social environments: Regional	Impact widespread far beyond site boundary: Regional	Impact extend National or over international boundaries

7.1.2 Duration

Duration is the time frame over which the impact is likely to occur, measured based on the lifetime of the project. Table 8 shows the rating of impact in terms of duration.

Table 8: Duration impact rating

Low (1)	**Low/Medium (2)**	**Medium (3)**	**Medium/High (4)**	**High (5)**
Instant mitigating measures, instant progress	Impact can be altered within a short period/fast, short term impacts (0-5 years)	Reversible over time; medium term (5-15 years)	Long-term Impact	Long term; beyond closure; permanent; irreplaceable or irretrievable commitment of resources

7.1.3 Intensity, Magnitude / severity

Intensity refers to the significance or magnitude to which the impact measures the functioning of an element of the environment. The significance of the adjustment can either be positive or negative. Because of this, the positivity or negativity of the adjustment significance was also considered during the assessment of severity. Table 9 shows the rating of impact in terms of intensity, magnitude, or severity.

Table 9: Intensity, magnitude, or severity impact rating

Type of criteria	Negative				
	H- (10)	M/H- (8)	M- (6)	M/L- (4)	L- (2)
Qualitative	Very high chances of deterioration, high quantity of deaths, injury of illness /	Substantial deterioration, death, illness or injury, loss of habitat / diversity or	Moderate deterioration, discomfort, partial loss of habitat / biodiversity or resource,	Low deterioration, slight noticeable alteration in habitat and biodiversity.	Minor deterioration, nuisance or irritation, minor change in species / habitat /

	total loss of habitat, total alteration of ecological processes, decaying of rare species	resource, severe alteration, or disturbance of important processes	moderate alteration	Little loss in species numbers	diversity or resource, no or very little quality deterioration .

7.1.4 Probability of occurrence

Probability indicates the possibility of the impacts to occur. This determination is ascertained by the evaluation of the previous experience with similar projects and/or based on professional judgment. See Table 10 for impact rating in terms of probability of occurrence.

Table 10: Probability of occurrence impact rating

Low (1)	Medium/Low (2)	Medium (3)	Medium/High (4)	High (5)
Improbable; low likelihood; seldom. No known risk or vulnerability to natural or induced hazards.	Likely to occur from time to time. Low risk or vulnerability to natural or induced hazards	A possible, distinct possibility, frequent. Low to medium risk or vulnerability to natural or induced hazards.	Probable if mitigating measures are not implemented. Medium risk of vulnerability to natural or induced hazards.	Definite (regardless of preventative measures), highly likely, and continuous. High risk or vulnerability to natural or induced hazards.

7.1.5 Significance

The gravity of the Impact the project will cause on the environment is ascertained and rated by a combination of the above impact attributes. The significance of the impact “without

mitigation" is the core determinant of the nature and degree of mitigation needed to avoid or minimise or offset the impact. As stated in the introduction to this chapter, for this assessment, the significance of the impact without commanded mitigation actions was measured.

Once the above factors (Table 6, Table 7 Table 8 and Table 10) have been ranked for each potential impact, the impact significance of each is assessed using the ***scale of magnitude*** formula:

Significance (SP) = (magnitude + duration + scale) x probability

The maximum value per potential impact is 100 significance points (SP). Potential impacts were rated as high, moderate, or low significance, based on the following significance rating scale (Table 10).

Table 11: Significance rating scale

SIGNIFICANCE	ENVIRONMENTAL SIGNIFICANCE POINTS	COLOUR CODE
High (positive)	>60	H
Medium (positive)	30 to 60	M
Low (positive)	<30	L
Neutral	0	N
Low (negative)	>-30	L
Medium (negative)	-30 to -60	M
High (negative)	>-60	H

Mitigation measures are employed for the identified impacts. This is so that the impacts identified can be avoided and/or minimised where avoidance is not possible, to a low significance rating, given that the impact with a medium significance rating can be effectively controlled with the recommended mitigation measures. The execution of the mitigation measures throughout the project's lifetime must be monitored to ensure that the significance

of the impacts is minimised to low or medium and are under control to maintain a low or medium significance rating.

The impact assessment for the proposed exploration activities is displayed in the following subchapters.

7.2 Pre-operational Phase Impact Assessment

The pre-operational phase, which is the beginning of phase two (2) of the exploration activities, the impact assessment focuses on the impacts identified in the process of the preparation of the site. The potential impacts during this phase include biodiversity impacts.

7.2.1 Impact Assessment of Biodiversity Loss

The environmental Act of 2007 recognizes that protecting and conserving biodiversity, maintaining ecosystem services, and sustainably managing living natural resources are fundamental to sustainable development. For this project, it is important that the protection and conservation of the biodiversity is accounted for. The project area has very sparse vegetation, and several trees but this does not despite the fact that a few areas of the site may need to be cleared in preparation for the proposed exploration activities. It is for this reason that the project will have, to a certain extent, an impact on the existing biodiversity in the area. Moreover, the construction of roads and tracks to access specific areas of the EPL may have an additional impact on the area's biodiversity.

To ensure minimal damage to the environment, it is critical that the removal of vegetation for site preparation is avoided where possible and done with care where avoidance is not possible. The anticipated impact on biodiversity at the project site is expected to be of low degree and/or significance that it will have irreversible effects on the biodiversity and endemism of the area and Namibia as a whole. The assessment of this impact is presented in Table 11.

Table 12: Assessment of the impacts of the exploration activities on biodiversity loss

	Extent	Duration	Intensity	Probability	Significance

Pre-mitigation	L/M – 2	M - 2	M – 6	M – 3	M – 30
Post-mitigation	L – 1	L- 1	M/L- 4	M/L – 2	L – 16

7.2.1.1 Mitigations and recommendations to biodiversity loss

As a matter of priority, the project should seek to avoid the clearance of vegetation. When avoidance of clearance is not possible, measures to minimize impacts and restore the loss of vegetation should be implemented. Also, the number of protected, endemic, and near-endemic species removed should be documented.

- Trees with trunk diameters of 150 mm or greater should be surveyed, marked with paint (that is easily visible), and protected.
- Trees and plants protected by the Forest Act No. 12 of 2001 may not be removed unless accompanied by a valid permit from the local Department of Forestry.

7.2.1.2 Impact Assessment of Archaeological and Heritage Resources

Aforementioned, there is no archaeological site noticed in the area, except for the cemetery observed. Based on the location of the project, it is mandatory that a detailed archaeological assessment is done in the area, and tall the details on archaeology and heritage sites are included in archaeological assessment report. The preparation of the site for the proposed exploration activities may require clearing certain areas on site. This may impact areas that could potentially house archaeological and heritage resources. The construction of roads to access certain areas on the EPL may also expand the impact on these resources. Should any of the archaeological and heritage be encountered during the exploration activities mitigation measures need to be implemented to make sure that these resources are not endangered. The pre-mitigation impact is assessed to be “medium” in significance and after mitigation, the impact is assessed to have a “low” significance. The assessment of this impact is presented in Table 12.

Table 13: Assessment of the impacts of the exploration activities on archaeological and heritage resources

	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	L/M – 2	L/M - 2	M – 6	H - 5	M - 50
Post-mitigation	L – 1	L- 1	M- 6	L/M - 2	L - 16

7.2.1.3 Mitigations and recommendation to archaeological and heritage resources

- An archaeological expert has been appointed to do 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 observed during activities on site.
- The project should adopt an Archaeological Chance Finds Procedure (ANNEXURE K) to cater for unexpected discoveries of archaeological remains during exploration.
- The National Heritage Council of Namibia (NHCN) should advise and give a consent with regards to the removal, packaging, and transfer of the potential resource.

7.3 Operational Phase Impact Assessment

This subchapter focused on the identification and assessment of the potential impacts associated with the operational phase of the exploration activities. The main impacts identified are impacts on wildlife, soil and groundwater, waste, social, archaeological resources and health and safety. Temporary potential impacts identified include dust and noise impacts.

7.3.1 Impact Assessment of Wildlife

During the field assessment, there had not been a sign for wild animal in the area. However, the farmers and workers around the area have indicated that wild animals are occasionally spotted in the area. The exploration activities can have an impact on the wildlife beyond the EPL area, as they will not be roaming freely. This is not only expected to occur during exploration activities but could also potentially be prolonged should the project proceed to mining (this will however be considered once a full EIA is commenced for the possible mining activities). The foreseen impact at the project site, is however not expected to be of such magnitude and/ or significance that it will have irreversible impacts on the biodiversity and endemism of the area and Namibia at large. This is because most of the wild animals within the area are likely to roam at night, when there are no any exploration activities happening. The assessment of this impact is presented in Table 13.

Table 14: Assessment of the impacts of the exploration activities on wildlife

	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M – 3	M - 3	M – 6	M - 3	M – 36
Post-mitigation	L/M – 2	L/M- 2	L/M- 4	L/M - 2	L – 16

7.3.1.1 Mitigations and recommendations to wildlife impacts

- The exploration activities should be restricted to during the day to allow the wildlife to roam freely at night.
- No snaring, hunting, or capturing of wildlife shall be permitted.
- There should be a no-theft policy in place for the duration of the exploration activities to be strictly adhered to by exploration workers.

7.3.2 Impact Assessment of Soil, Surface, and Groundwater

The spills and leakages of hydrocarbon products and hazardous material may lead to soil, surface and groundwater contamination if not handled, stored, and disposed properly. The pre-mitigation impact is assessed to be “medium” in significance and after mitigation the impact is assessed to have a “low” significance. The assessment of this impact is presented in Table 14.

Table 15: Assessment of the impacts of the exploration activities on soil, surface and groundwater

	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M/H – 4	M/H – 4	M/H – 8	M – 3	M – 48
Post-mitigation	M – 3	L/M- 2	M- 6	L/M - 2	L – 22

7.3.2.1 Mitigations and recommendations to soil, surface, and groundwater impacts

- Effective training on how to correctly handle and store hydrocarbon and hazardous material should be given to the worker, to ensure that it is correctly done.
- 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 established and maintained to manage soil contamination.
- Training in spill management should be offered to the employees.
- All contaminants (e.g., hydrocarbons) which might potentially be carried in run-off should be contained on-site in the appropriate manner (e.g., temporary storage in designated containers, installation of oil-water separators etc.) and disposed of as hazardous waste so that they do not contaminate soil or groundwater.
- There should be appropriate storage and handling of hydrocarbons on site.

- Potential contaminants such as hydrocarbons and wastewater should be contained on site and disposed of in accordance with municipal wastewater discharge standards so that they do not contaminate surrounding soils and eventually groundwater.
- There should be an emergency plan 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.

7.3.3 Impact Assessment of Erosion

Exploration activities can lead to erosion from the removal of vegetation and trees which could impact water run-off and loss of topsoil. The pre-mitigation impact is assessed to be "medium" in significance and thereafter of a "low" significance when the mitigation measures are employed. The assessment of this impact is presented in Table 15.

Table 15: Assessment of the impacts of the exploration activities on erosion

	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M/H - 4	M/H - 4	M/H – 8	M – 3	M – 48
Post-mitigation	M - 3	L/M- 2	M- 6	L/M – 2	L – 22

7.3.3.1 Mitigations and recommendations to erosion

- Where possible, avoidance for the unnecessary destruction of habitat (e.g., large trees or bushes) and/or degradation of the environment, including the sensitive drainage lines and other vegetated areas must be practiced.
- Ensure erosion control and prevention measures are in situ when vegetation is removed.
- Drainage lines when planning for access routes/tracks must be avoided.

7.3.4 Impact Assessment of Waste

Unsuited discarding of waste materials at the site may lead to pollution of the site and resultant environmental degradation. The pre-mitigation impact is assessed to be "low" in

significance and after mitigation, the impact is assessed to have a "low" significance. The assessment of this impact is presented in Table 16.

Table 16: Assessment of the impacts of the exploration activities on waste

	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M/L - 2	M/L - 2	M/L – 4	M – 3	L – 24
Post-mitigation	L - 1	L- 1	L- 2	M/L – 2	L – 12

7.3.4.1 Mitigations and recommendations to waste

- Waste produced on site is to be collected and discarded of daily at the nearest licensed landfill.
- Separate waste bins for domestic and hazardous waste should be allocated on site.
- No waste may be buried or burned on site or anywhere else.

7.3.5 Impact Assessment of Health and Safety

Exploration activities can have an impact on people's health and safety that are working for the project. The pre-mitigation impact is assessed to be "medium" in significance and when mitigation is implemented, the impact is assessed to have a "low" significance. The assessment of this impact is presented in Table 17.

Table 17: Assessment of the impacts of the exploration activities on health and safety

	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M/L - 2	M/L - 2	M – 6	M/H - 4	M – 40

Post-mitigation	L - 1	L- 1	M/L- 4	M - 3	L – 18

7.3.5.1 Mitigations and recommendations to Health and Safety

- Exploration workers should be provided with awareness training about the risks associated with hydrocarbon handling and storage.
- During the works conducted, workers should be properly equipped with the appropriate personal protective equipment (PPE) such as coveralls, gloves, safety boots, safety glasses etc.
- Regular health and safety training should be carried out to help workers understand of the risks and the need to be vigilant.
- Safety meetings should take place every morning before work starts to remind the employees of the safest way of carrying out their duties.

7.3.6 Impact Assessment of Dust

Exploration activities are likely to generate dust. The pre-mitigation impact is assessed to be "medium" in significance and after mitigation the impact is assessed to have a "low" significance. The assessment of this impact is presented in Table 18.

Table 18: Assessment of the impacts of the exploration activities on dust generation

	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	L/M - 2	L/M - 2	M/H – 8	M - 3	M – 36
Post-mitigation	L - 1	L- 1	M- 6	M/L - 2	L – 16

7.3.6.1 Mitigations and recommendations to dust generation

- Dust subsiding techniques should be executed e.g. Spraying of water as needed. However, caution should be taken during times of low water availability then waterless dust suppression means should be considered.

- Exploration workers should be given and wear dust masks during exploration works at all times.

7.3.7 Impact Assessment of Noise

During operation, exploration equipment and machinery will likely produce high levels of noise. On a similar ground, the use of aircraft for remote sensing techniques during exploration over large areas may disturb animals and human activity due to excessive noise. The pre-mitigation impact is assessed to be "medium" in significance and after mitigation, the impact is assessed to have a "low" significance. The assessment of this impact is presented in Table 19.

Table 19: Assessment of the impacts of the exploration activities on noise

	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	L/M - 2	L/M - 2	M/H - 8	M - 3	M – 36
Post-mitigation	L - 1	L- 1	M- 6	L/M - 2	L – 16

7.3.7.1 Mitigations and recommendations to noise

- Exploration activities should not take place between dusk and dawn unless otherwise arranged with neighbouring farms in proximity.
- Flying aircraft directly over human settlements should be avoided.
- Consultation with the relevant stakeholders about the best suited time to fly prior to commencing with the flights shall be arranged and done.
- Noise levels should adhere to the South African National Standards (SANS) regulations 10103.

7.3.8 Impact Assessment of Archaeological and Heritage Resources

The proposed exploration activities can impact areas that could potentially house archaeological and heritage resources. The EPL lies in a region that is declared to be archaeological sensitivity, with a high likelihood that it will contain archaeological sites. Mitigation measures need to be in place to ensure that archaeological resources are not impaired in case they are encountered during the exploration activities. The pre-mitigation impact is assessed to be "medium" in significance and after mitigation the impact is assessed to have a "low" significance. The assessment of this impact is presented in Table 20.

Table 20: Assessment of the impacts of the exploration activities on archaeological and heritage resources

	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	L/M - 2	L/M - 2	M - 6	H – 5	M – 50
Post-mitigation	L - 1	L- 1	M- 6	L/M – 2	L – 16

7.3.8.1 Mitigations and recommendation to archaeological and heritage resources

- An archaeological expert must be appointed to undertake a detailed archaeological assessment and surveying once targets have been identified for drilling and/or other mechanically assisted exploration, and prior to the commencement of any such activities. Additionally, there should be ongoing monitoring and auditing throughout the project's lifetime, and it should be done by the expert/s.
- All works are to be immediately stopped should an archaeological or heritage resource be discovered during activities on site.
- The project should adopt an Archaeological Chance Finds Procedure (ANNEXURE K) to cater for unexpected discoveries of archaeological remains during exploration.
- The National Heritage Council of Namibia (NHCN) should advise and give a consent with regards to the removal, packaging, and transfer of the potential resource.

7.3.9 Impact Assessment of Social Environment

The proposed exploration development may create employment opportunities for the communities within proximity of the exploration site. Additional benefits may arise depending on the agreements reached between the farmers and the proponent. The assessment of this impact is presented in Table 21.

Table 21: Assessment of the impacts of the exploration activities on social environment

	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	L – 1	L/M - 2	L - 2	M - 3	L – 15
Post-mitigation	L – 2	M- 3	M- 6	M/H - 4	M – 44

7.3.9.1 Mitigations and recommendations to the social environment

- Should any job opportunities arise, the direct affected communities should benefit and be employed.

7.4 Decommissioning Phase

Once the exploration activities shutdown, the key potential impacts are groundwater pollution and the retrenchment of people employed by the activities.

7.4.1 Impact on Groundwater

Should the exploration activities be decommissioned, and the exploration area is rehabilitated, groundwater pollution may occur if contaminated soils are utilized during rehabilitation. The pre-mitigation impact is assessed to be “medium” in significance and after mitigation, the impact is assessed to have a “low” significance. The assessment of this impact is presented in Table 22.

Table 22: Assessment of the impacts of decommissioning of exploration activity on groundwater

	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M/H – 4	M/H - 4	M/H - 8	M – 3	M – 48
Post-mitigation	M – 3	L/ML- 2	M- 6	M/L – 2	L – 22

7.4.1.1 Mitigations and recommendations on groundwater impacts

- Rehabilitation of the site to appropriate standards should be commenced once exploration works cease.
- Landowners should be consulted well in advance to indicate acceptance of the rehabilitation.

7.4.2 Impact on Employment

The decommissioning of the exploration activities may lead to workers who are employed on contract basis losing their jobs. The pre-mitigation impact is assessed to be “medium” in significance and after mitigation the impact is assessed to have a “low” significance. The assessment of this impact is presented in Table 23.

Table 23: Assessment of the impacts of decommissioning of exploration activity on employment

	Extent	Duration	Intensity	Probability	Significance
Pre-mitigation	M/HL/M – 4	M/H - 4	M/H – 8	M - 3	M – 48
Post-mitigation	L/M – 3	L/M- 2	M- 6	L/M - 2	L – 22

7.4.2.1 Mitigations and recommendations on loss of employment

- The Proponent should inform the employees well in advance, of the possibility of ending the exploration activities, and the expected date.
- The Proponent should make it known to the employees of the possibilities for work in other related sectors if possible.

8 CONCLUSION AND RECOMMENDATIONS

8.1 Conclusion

The assessment of the impacts of the planned activities on the environment, including impacts on biodiversity, air, water, vegetation, and ecology has been done. The assessment included all impacts linked to the pre-operational, operational and maintenance and decommissioning phases of the proposed project activities have been identified and assessed. Succeeding the identification and evaluation of the impacts, mitigation measures have been drawn to avoid and/or minimise the assessed impacts. The impacts can be summarised as follows:

- Impacts on biodiversity loss (during pre-operational phase_ end of phase 1 and beginning of phase 2 of exploration activities): There is the possibility of loss of vegetation during the preparation of the site for the proposed activity. However, the impact can be sufficiently addressed by the recommendations given in the report and management actions given in the EMP.
- Impacts on wildlife during field operational phase (phase 2 and 3 of exploration activities): Although no wildlife is spotted often in the area, they are occasionally observed, and the exploration activities thus may disturb the roaming patterns of the wildlife. The impact can be adequately addressed by the series of management plans given in the report and management actions given in the EMP.
- Impacts on soil, surface, and groundwater (during operational and decommissioning phases): Improper handling, storage and disposal of hydrocarbon products and hazardous materials at the site may lead to soil and groundwater contamination, in case of spills and leakages. Should the exploration activities be decommissioned, and the excavated areas be rehabilitated groundwater may be polluted if contaminated

soils are used. The impact can be adequately addressed by the management plans given under the report and the management actions given in the EMP.

- Impacts of erosion (during operational phase): Exploration activities will result in the removal of some vegetation; this may cause erosion related to water run-off and loss of topsoil. The impact can be efficiently addressed by the recommendations given in the report and management actions given in the EMP.
- Impacts on waste (during field operational phase): Unsuitable disposal of waste materials at the site may lead to pollution of the site and resultant environmental degradation. The impact can be efficiently minimised by the recommendations given in the report and management actions given in the EMP.
- Impacts on health and safety (during filed operational phase): Exploration activities may cause health and safety risks to people operating on the site. The impact can be adequately resolved by the mitigation measures given in the report and management actions given in the EMP.
- Impacts on dust and noise (during field operational phase): Exploration activities may result in the increment of dust and noise generated around the site area. The impact can be adequately addressed by the recommendations given in the report and management actions given in the EMP.
- Impacts on archaeological and heritage resources (during field pre-operational and field operational phase): The proposed exploration activities may impact areas that could potentially be accommodation of archaeological and heritage resources. Should these be encountered during the exploration activities mitigation measures need to be in place to ensure that these resources are not harmed. The impact can be efficiently resolved by the mitigation measures given in the report and management actions given in the EMP.
- Impact on social environment (during filed operational and decommissioning phase): The proposed activity may provide employment opportunities for the local people. Additional benefits may arise depending on the agreements reached between the farmers and the proponent. Once the exploration activities are decommissioned those employed on contract basis may lose their jobs. The impact can be adequately addressed by the recommendations given in the report and management actions given in the EMP.

8.2 Recommendation

Based on the information provided in this report, SS can assure that the identified risks and impacts associated with the proposed exploration activities can be reduced to bearable levels and ensure nominal harm to the environment, should the measures recommended in the EMP be implemented and monitored effectively.

It is therefore recommended that the project receive an ECC, on the following conditions:

- All the management and mitigation measures provided herein are effectively and progressively implemented.
- All required permits, licenses and approvals for the proposed activities should be obtained as required. These include permits and licenses for land use agreements, services provision agreements (water provision) to explore and ensuring compliance with these specific legal requirements.
- The Proponent, their project workers or contractors comply with the legal requirements governing their project and its associated activities and ensure that project permits and or approvals required to undertake specific site activities are obtained and renewed as stipulated by the issuing authorities.
- Site areas where exploration activities have ceased are rehabilitated, as far as practicable, to their pre-exploration state. This includes the levelling of stockpiled topsoil, backfilling of exploration trenches and closing/capping of exploration holes
- That the EMP be implemented and monitored effectively by the proponent and all appointed consultants;
- The proponent is to consult and engage with the local and traditional authorities prior to the start of the project.
- That once a target area has been identified all invasive work should be conducted in accordance with the EMP.

9 REFERENCES

Diehl M, 1986. Preliminary report on the Cape Cross – Uis pegmatite field. Communs geol. Surv. SW. Africa/Namibia. 2. p. 37-42.

International Trade Administration, 2022, Available at: https://www.trade.gov/country-commercial-guides/namibia-mining-and-minerals#:~:text=Mining%2C%20Namibia%27s%20leading%20economic%20sector,land%2Dbased%20diamond%20mining%20company (Download date: 14 July 2022.

Miller, R. McG. 1983a. The Pan-African Damara Orogen of South West Africa/Namibia, 431-515. In: Miller, R. McG. (Ed.), Evolution of the Damara Orogen of South West Africa/Namibia. Spec. Publ. geol. Soc. S. Afr., 11, 515pp

Mining Africa. 2017, Available at https://www.miningafrica.net/mining-countries-africa/namibia/#:~:text=Mining%20is%20the%20most%20important,fuel%20mineral%20exporter%20in%20Africa. (Download date: 10 July 2020)

Mining Minnesota, 2014. Exploration drilling best management practices, Duluth: Mining Minnesota.

Ministry of Agriculture, Water and Forestry, 2011. Groundwater in Namibia and Explanation to the Hydrogeological Map, s.l.: s.n.

Nambinga and Lydia Mubita, 2021, The Impact of Mining sector to the Namibia economy "Assessing socio-economic and environmental effects", National Planning Commission

Namibia Statistics Agency, 2011. Namibia National Census Data. [Online]

Available at: https://nsa.org.na/

NSW Mining, 2013. Exploration Methods Explained: Fact Sheet, Castle Hill: Anchor Resources.

Resilient Environmental Solutions. (2019). Scoping Report for the Environmental Assessment Report for EPL-7264 near Talismanis in the Omaheke Region. Windhoek. Ministry of Environment, Forestry and Tourism.

The Mineral Resources of Namibia (Yellow file). 1993. Geological Survey of Namibia (GSN).

Walser. G. (2000). Economic impact of world mining. World Bank Group Mining Department, Washington, D.C., United States of America

ANNEXURE A: CV_ ANNA MT NEKUTA

ANNA NEKUTA

annapiet724@gmail.com | **C: 264814304609 | Windhoek, KH 9000**

SUMMARY

Anna Nekuta is and outstanding researcher and an International Energy and the Environment specialist, with more than 50% distinctions scores in the masters of science research papers (some published), skilled at gathering information. analyzing data, and executing knowledge leading to industry growth and Excellency. She also has a sound knowledge in Geology with five years of exploration experience in base and previous metals. Energetic critical-thinker, creative, focused on prioritization of projects while developing detailed, quality research for reports, data interpretation and good decision-making.

SKILLS

- Explorations execution
- Completing research
- Report preparation
- Conducting Research
- Environmental Impact Assessment Report Writing
- GIS Software
- Data collection and analysis
- Networking

EXPERIENCE

SS Consultant Senior Geologist

05/2020-Present

- To Ensure clients comply with the mining legislations;
- Compilation of Mineral Rights applications;
- Compilation of various reports (i.e. geological mapping, desktop study, quarterly , QA/QC and progress reports);
- Compilation of Environmental Impact Assessments;
- Generating project data using ArcGIS Software;
- To identify new mineral prospecting projects for clients;
- Supervision of the junior stuff;

B2Gold Exploration Namibia | Exploration Geologist

06/2013 - 02/2018

- Leveraged Map Info and GIS software for accurate geological data gathering, and interpretation that led to finding a new deposit.
- QA/QC control
- Ore Spotting
- Aided planning by executing detailed mapping explorations, which produced Drilling positions and directions leading to positive results on the deposits being sought for.
- Created timely, accurate and thorough research reports to support effective decision making for Exploration projects
- Established and managed data gathering, interpretation and submission techniques for field projects to finding deposits.
- Sighting for chips and core drilling
- Drilling Supervision
- Core **logging and geological Structures Interpretation**
-

EDUCATION AND TRAINING

University of Dundee Scotland | Dundee, Scotland, United Kingdom Master's oEf Science in International Energy Studies and the Environment *06/2019*

- MSc Cum laude graduate
- Dissertation: Diversification Strategies of electricity market: An Exploratory Study on the Success of Generation-Mix Strategies of Electricity Market; with Special Reference to Namibia.
- Scored Distinction in more than 50% of the Energy Studies Research Paper

University of Namibia Windhoek | Namibia Bachelor of Science in Geology

04/2013

ACTIVITIES AND HONOURS

- Member, Alumni Association (both for University of Namibia and Dundee University)
- Part of the Exploration group that worked and found Wolshag Deposit (part of B2gold Otjikoto project)

REFERENCES

1. Dr Rafael Macatangay

Lecturer: Dundee University, Scotland Email: r.e.a.macatangay@dundee.ac.uk

2. MR. Tomas Mutilifa

Senior Exploration Geologist: B2Gold Namibia Contact number: +264 67 306517

Email: tmutilifa@b2gold.com

3. Mrs. Kashiwanwa Neshila- Immanuel

Developing Officer: Alumni and Networking University of Namibia

Contact number: +264 852699373 Email: kneshila@gmail.com

ANNEXURE B: ENVIRONMENTAL MANAGEMENT PLAN (EMP)

ENVIRONMENTAL MANAGEMENT PLAN REPORT FOR:

THE PROPOSED INDUSTRIAL MINERALS, DIMENSION STONE, PRECIOUS METALS, BASE AND RARE METALS MINERAL ON EPL NO.7576

USAKOS DISTRICT

ERONGO REGION – NAMIBIA

COMPILED BY

SS CONSULTANTS

info@ssconsultants.com

TABLE OF CONTENTS

1. INTRODUCTION 1

1.1. PROJECT BACKGROUND 1

1.2. PURPOSE OF THE EMP 2

1.3. ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP) 4

1.4. LEGAL REQUIREMENTS 4

1.5. ASSUMPTIONS AND LIMITATIONS 5

1.6. REPORT STRUCTURE 5

2. ROLES AND RESPONSIBILITIES 6

2.1. PROPONENT'S REPRESENTATIVE 6

2.2. ENVIRONMENTAL CONTROL OFFICER 7

3. ENVIRONMENTAL MANAGEMENT PLAN ACTIONS 8

3.1. KEY POTENTIAL ENVIRONMENTAL IMPACTS TO BE MANAGED 8

PHASE 1: PLANNING AND DESIGN MANAGEMENT ACTIONS 10

PHASE 2: OPERATIONAL PHASE MANAGEMENT ACTIONS 14

PHASE 4: REHABILITATION AND DECOMMISSIONING MANAGEMENT ACTIONS 26

4. CONCLUSION AND RECOMMENDATIONS 29

RECOMMENDATIONS FOR MONITORING 30

5. REFERENCES 30

LIST OF FIGURES

Figure 1-1: Locality Map for EPL 7576. 2

LIST OF TABLES

Table 2-1: Responsibilities assigned to the Proponent's Representative for planning and design, operation and decommissioning phases. 6

Table 3-1: Summary of key potential environmental impacts per project phase 8

Table 3-2: Planning and design management actions 10

Table 3-3: Operation phase management actions 14

Table 3-4: Decommissioning phase management actions 26

1. INTRODUCTION

1.1. Project Background

The Ministry of Mines and Energy (MME) has granted the EPL 7576 to the proponent to undertake mineral exploration activities for the mineral groups of industrial minerals, dimension stone, precious metals, base and rare metals mineral. However, the proponent cannot commence with the exploration activities until the awarding of an Environmental Clearance Certificate (ECC). According to the Minerals (Prospecting and Mining) Act No. 33 f 1992 (Minerals Act), Section 67(1)(a) denounce that an EPL is for the purpose of conducting of mineral resource exploration. The mineral groups consist of various elements that fall under each group and listed in the Minerals Act Schedule 1.

According to Environmental Management Act (EMA) (2007) and its 2012 Environmental Impact Assessment (EIA) Regulations. It is mandatory that the proponent conduct an EIA for the project to identify all the possible impacts it may have on the environment, and in turn come up with an effective Environmental Management Plan (EMP) that would help to manage the impacts by the implementation of drafted mitigation measures. If the proponent does not carried out the EIA and EMP, then this implies that the proponent thus will not be awarded the ECC.

EPL 7576 is situated about 30 Km in the northwestern direction of Usakos town, within the Erongo region. Access to the area is via the B2 tarred road from Usakos to Arandis then take the D1930 dirt road that passes through the license Figure 1-1. The EPL covers a total surface area of about 353.552 hectares.

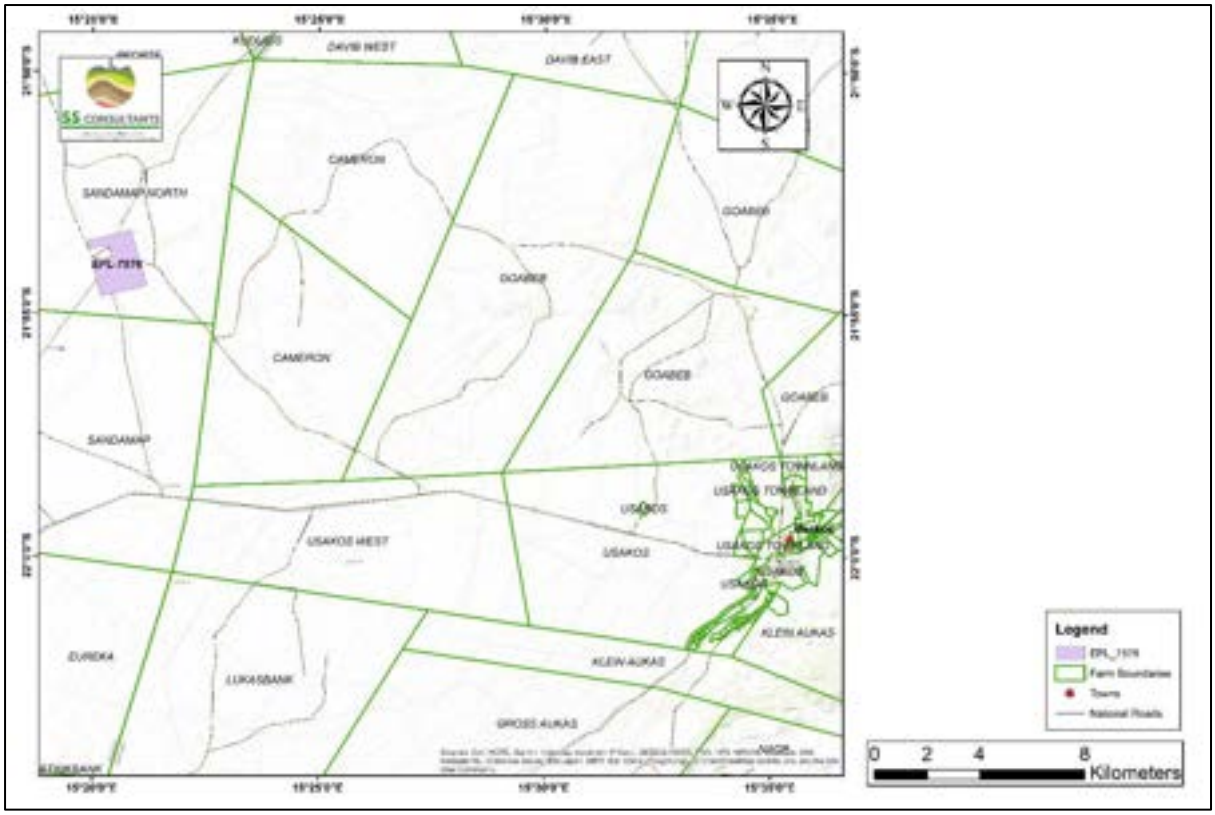


Figure 1-1: Locality Map for EPL 7576.

1.2. Purpose of the EMP

The EMP is a guidance tool for the implementation of the proposed project in this case to conduct exploration activities. The EMP can also be defined as an adoption of a mitigation hierarchy that anticipate to avoid, or where avoidance is not possible, minimize, or compensate/offset impacts that the project may have on the environment. In short, a 'management plan' is defined as:

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

As mentioned in the previous sub-section, before the project activities begin, an ECC is required based on an approved EMP. Which is according to regulation 8 of the Environmental Management Act's (EMA) (7 of 2007) and the Environmental Impact Assessment Regulations (2012). It is mandatory that a draft of the EMP is included as part of the scoping Environmental

Assessment (EA) process.

The risks and impacts identified in the EIA are connected with the needed environmental management (EM) on the ground, during project implementation and operation. Noteworthy, EMP is a legally binding document and a person who breaches the provisions of this EMP may face imprisonment and/or a fine. Continuous EMP management should be adopted throughout the project's life to ensure that the implementation of the mitigations that are responsive to any change that may occur is effective and that the result of monitoring is positive throughout the project's life cycle.

The core focus of the EMP is to establish environmental action plans, which will define desired outcomes and measures to address the issues raised in the impacts identification process, and with estimates of the resources and responsibilities for implementation. The EMP document therefore gives continuous guidance on environmental management throughout the life- span of the proposed project; pre-operation (planning and design), operation and decommissioning.

The overall objectives of the EMP:

- To implement measures that will help avoid and/or minimise the adverse impacts of the proposed project
- To Ensure that regulatory authority stipulations and guidelines are complied
- To develop measures that enhance the value of environmental components where possible.
- To develop measures that protect environmental resources (biodiversity, ecosystem, natural resources and social aspects) as well enhance the value of environmental components where possible.
- Responding to unforeseen events and providing feedback for continual improvement in environmental performance.

The following phases are addressed in this EMP:

- **Planning and design (Pre-operation)** – Before the exploration activities commence, preliminary legislative and administrative arrangements have to be carried out. This is done to prepare for the proposed exploration activities.
- **Operation** - the period during which the exploration activities will be operational.
- **Decommissioning** – This phase is implemented when the proposed development's lifetime ends.

1.3. Environmental Assessment Practitioner (EAP)

SS Consultants, an independent environmental consultant was appointed by the proponent to undertake the required Environmental Assessment (EA) and an EMP for the proposed development. Following the Environmental Act of 2007, it is mandatory that the EMP is submitted together with the scoping EA report as supporting documents to the application for an ECC to the Environmental Commissioner (EC) at the Department of Environmental Affairs (DEA) of the Ministry of Environment, Forestry and Tourism (MEFT). The EMP will serve a guidance for the Contractors as well as the proponent to direct them during the proposed exploration operations. Which is to ensure that impacts on the environment are to be avoided where possible or limited.

1.4. Legal Requirements

The EMP must meet the requirements of Section 8 (j) of the EIA Regulations in order for it to be considered. The EMP must address all the identified potential environmental impacts of the proposed activity on the environment throughout the project life cycle. In addition, the EMP has to include a system for assessment of the effective monitoring and management arrangements after implementation. It is the responsibility of the proponent to make sure that the proposed activity as well as the EIA process comply with the principles of EMA and must ensure that any contractors appointed by them also conform to such principles.

1.5. Assumptions and Limitations

This EMP has been developed with the acknowledgement of the following assumptions and limitations:

- This EMP has been formulated in connection with the scoping-level Environmental Impact Assessment (EIA) conducted for the proposed development of EPL 7576 inclusive of an Archaeological and Cultural Impact Assessment Report**.**
- The mitigation measures recommended in this EMP document are based on the risks/impacts in the scoping report, which were identified based on the provided project description and site investigation. It is important to note that the EMP is adjustable throughout the project development, and can be amended if the scope of the project changes. This means that for any change in the scope of the project, the impacts will be reassessed and the mitigation measures will be formulated correspondingly.

1.6. Report Structure

The EMP pinned out the mitigation and management plans that must be executed and monitored for the proposed exploration activities on EPL 7576. The EMP addresses the following phases:

- **Pre–Operational (Planning and design) phase** - Before the exploration activities commence, preliminary legislative and administrative arrangement must be carried out. This is done with the reason of preparing for the proposed exploration activities;
- **Operation phase** - the period of which exploration activities will be in operation and conducted by the proponent and/or their contractors; and
- **Decommissioning phase**: when the proposed development's lifetime ends only than this phase shall be implemented.

2. ROLES AND RESPONSIBILITIES

The proponent carries the entire responsibility to ensure that the EMP is sufficiently implemented, as deem necessary, and make sure that sound monitoring is done. Monitoring is critical in ensuring the fulfilment of all the commitments made in the EIA regarding the mitigation measures. The EMP and its monitoring programme is a continuous process that starts right at project's design, and continues through to development, operation, and decommissioning (if considered). The delegated responsibility for the effective implementation of this EMP will rest on the following key individuals, which may be fulfilled by the same person:

- Proponent's Representative
- Environmental Control Officer

2.1. Proponent's Representative

The Proponent can either manage all aspects of the planning and design, operation and decommissioning activities throughout the above mentioned phases referred to in this EMP, or assign the responsibility to a suitably qualified individual referred to in this plan as the Proponent's Representative (PR). The Proponent may decide to assign the role of a PR to one person for all phases of exploration. Alternatively, the Proponent can assign a separate PR for each component i.e. planning and design, operation, and decommissioning phase. The PR's responsibilities are included in **Table 2-1** below.

Table 2-1: Responsibilities assigned to the Proponent's Representative for planning and design, operation and decommissioning phases.

Responsibility	Project Phase
Managing the Execution and monitoring of this EMP and updating and maintaining it when necessary	Throughout the lifetime of the project

Ensure environmental policies are clearly communicated to all personnel and that employees understand the guidelines of the EMP	Throughout the lifetime of the project
Management and monitoring of individuals and/or equipment on-site in terms of compliance with this EMP	Throughout the lifetime of the project
Issuing fines for contravening EMP provisions	Throughout the lifetime of the project

2.2. Environmental Control Officer

It is crucial that the proponent assigns responsibility for administering the on-site implementation of the entire EMP, from the planning and design phase to the operation and decommissioning phase, to a designated person, named herein as Environmental Control Officer (ECO). The Proponent may choose to assign this role to one person for both phases, or they may assign separate individual ECOs to oversee the implementation of the EMP during each phase. The ECOs will have the following responsibilities:

- Management and easing of communication between the Proponent, PR and Interested and Affected Parties (I&APs) regarding this EMP.
- Implementation of site inspections (recommended minimum frequency is monthly during exploration and bi-annually during decommissioning) of all areas with respect to the implementation of this EMP (monitor and audit the implementation of the EMP);
- Advising the PR on the removal of person(s) and/or equipment not adhering with the provisions of this EMP;
- Making recommendations to the PR with respect to the issuing of fines for contraventions of the EMP; and
- Conducting the annual auditing of the EMP and recommending additions and/or changes to this document.

3. ENVIRONMENTAL MANAGEMENT PLAN ACTIONS

The core reason for this EMP is to manage and monitor the identified mitigation measures and risks that may occur over the project lifetime. It delivers the recommendations from the Scoping Report in the form of Environmental Specifications that can be practically implemented and enforced on site so that there is avoidance and/or as minimal damage to the environment as possible. The analyses of the impacts and the creation of mitigation measures will likely identify a number of changes in the project design, implementation and closure. The EMP gives the commitments, which form the environmental contract between Proponent and the Government of the Republic of Namibia; represented by the Ministry of Environment, Forestry and Tourism (MEFT).The management measures proposed to mitigate the potential impacts are detailed in the action plans below.

3.1. Key Potential environmental impacts to be managed

From the EA, the following potential impacts per project phase have been identified and are summarised in the tables under subchapters 3.1, 3.2 to 3.5 as well as in the Scoping Report.

Table 3-1: Summary of key potential environmental impacts per project phase

	Project Phase	**Potential impacts identified in the EA**
1	Pre-Operation	Biodiversity and archaeological impacts
2	Operation	Health and safety, soil, surface and groundwater contamination, wildlife disturbance, dust, noise, environmental degradation, erosion, archaeological and social impacts.
3	Decommissioning	Loss of employment and soil, surface and groundwater contamination.

The primary aim of the management actions of the EMP is to avoid the potential impacts where possible. Where impacts cannot be avoided, measures are put into place to ensure the

risks/impacts are minimised or offset.

Management actions must be performed to manage the potential impacts rated in the EA carried out for the proposed exploration development are presented in the following tables. The management actions were formulated based on the three project phases:

- Planning and design phase (pre-exploration) (**Table 3-2**).
- Operation and maintenance phase management actions (during exploration activities)
- **Table 3-3**).
- Decommissioning phase (**Table 3-4**)

The proponent or the delegated personnel should evaluate these measures in detail and concede their commitment to the specific management actions detailed in the table of the next subchapters.

Phase 1: Planning and Design Management Actions

The management requirements detailed in **Table 3-2** need to be implemented before any exploration activities commence on site. Also, necessary preliminary legislative and administrative arrangements must be set up in preparation for the proposed exploration activities.

Table 3-2: Planning and design management actions

Aspect	Management Requirement
Labour Recruitment	Provisions designed to reduce the use of local labour should be inclusive within tenders concerning the: • Provision to promote the fair treatment, non-discrimination, and equal opportunity of workers, and to establish, maintain, and improve the worker-management relationship, and promote compliance with national employment and labour laws. • Provision stating that all unskilled labour derived from local communities should be included within tenders concerning the exploration operations. • Specific employment procedures ensuring local firms enjoy preference during tender adjudication should be included within tenders that have to do with the exploration operations. • Provisions promoting gender equality pertaining to recruitment should be included within tenders concerning the exploration operations.

Aspect	Management Requirement
Biodiversity	• There should be a study done on the vegetation within those areas that will be affected by exploration activities and related infrastructure. • All trees (a "tree" is defined here as an indigenous woody perennial plant with a trunk diameter ≥150 mm) that occur within the development site should be surveyed and not removed from site. • Should there be a need to remove some of the trees that have not been registered and surveyed, the Proponent should apply for the licence to remove these trees from the local Forestry department (Ministry of Environment, Forestry and Tourism). • Large indigenous trees and protected tree species within to be kept the site should be surveyed and marked with red paint.
EMP Implementation	• A Proponent's Representative (PR) that will act as their on-site implementing agent should be appointed. The PR should be responsible for ensuring that the Proponent's responsibilities are executed effectively and comply to relevant legislation and this EMP.
Consultation with affected farmers	• There should be an ongoing informed consultation and participation with the affected communities prior to any exploration activities commencing on site in order to provide them with the following information

Aspect	Management Requirement
	○ Detailed work plan with regards to the exploration activities. ○ Discussion of access agreements. ○ Discussion of compensation (as necessary). ○ Any other concerns or information requirements that the farmers may have.
Agreements with community affected by the activity	• Access agreements need to be made with the affected parties (community, local and traditional authorities) that most likely to be affected by the exploration activities in the area. • The agreement should include but is not limited to: ○ Compensation agreements (if necessary). ○ Agreed upon working hours. ○ An allegiance by the exploration company for the rehabilitation of the site when exploration activities are decommissioned. ○ Agreement upon access to the site. ○ Dedication to the adherence and implementation of the EMP. ○ The Scoping Report and EMP for reference.
Archaeology	• An archaeological expert must be appointed to conduct a detailed archaeological survey once targets have been identified for drilling and/or other mechanically-assisted exploration

Aspect	Management Requirement
	• Once the exact locations of the exploration sites are determined, and should a heritage or archaeological site be uncovered, an Archaeological Chance Finds Procedure should be applied as outlined in Appendix K of the Scoping Report.

Phase 2: Operational Phase Management Actions

The management actions for the operational phase during which the exploration activities will take place are listed in

Table 3-3.

Table 3-3: Operation phase management actions

Environmental Feature	Impact	Management Actions
EMP training	Lack of EMP awareness and the implications thereof	• Employees appointed for exploration work must ensure that all personnel are aware of necessary health, safety, and environmental considerations applicable to their respective work, as per the management plan.
Monitoring	EMP non-compliance	• The ECO or the Proponent/Proponents Representative should monitor the implementation of this EMP. • The Proponents Representative should inspect the site throughout the exploration at least on a monthly basis.

Environmental Feature	Impact	Management Actions
		• Bi-annual audits should be conducted of site activities by an external ECO.
Waste Management	Visual impact and soil contamination	• The exploration site should always be kept clean. • All domestic and general waste accumulated daily should be cleaned and contained daily. • No waste may be buried or burned. • Waste containers (bins) should be emptied regularly and removed from site to the nearest municipal waste disposal site. • All recyclable waste needs to be taken to the nearest recycling depot. • A sufficient number of separate waste containers (bins) for hazardous and domestic / general waste must be provided on site. • Exploration workers should be sensitised to dispose of waste in a responsible manner and not to litter. • All the wastes must be removed from site after the completion of the project.

Environmental Feature	Impact	Management Actions
Hazardous Waste	Soil and groundwater contamination	• All heavy operation vehicles and equipment on site must be supplied with a drip tray. • All heavy operation vehicles should be maintained regularly to avoid oil leakages. • Maintenance and washing of operation vehicles must happen only at a deputed workshop area.
Wastewater	Groundwater contamination	• Use of the toilets instead of the veld must be strictly adhered to. • If grey water can be collected from ablution facilities at the contractors' camp it should be recycled and: o Used for dust suppression; o Used to water vegetable gardens or to support a small nursery in local communities (as and when agreed upon by such communities); and/or o Used to clean equipment. • All run off materials such as hydrocarbons, wastewater and other potential contaminants should be contained on site and disposed of

Environmental Feature	Impact	Management Actions
		in accordance with municipal wastewater discharge standards, so that they do not reach to ground or surface water systems. • Wastewater (excluding sewage) should be drained into lined / impermeable catch pits, big enough for daily / weekly usage without overflowing. Water from these catch pits should be removed from site to the nearest wastewater treatment facility by an approved wastewater removal company. • Groundwater impact awareness training should be given to the employees involved in this project phase. • There must be an established and maintained emergency preparedness and response system that facilitates space for responding to any accidental and emergency situations to prevent and mitigate any harm to people and the environment. This can account for major / minor spills and firefighting at the exploration site during exploration activities (with consideration of air, groundwater, soil and surface water).

Environmental Feature	Impact	Management Actions
Soil	Soil contamination	• Spill control preventative measures should be put in place to control soil contamination. • An impermeable liner should be placed on the site area in order to prevent contaminants from reaching to surrounding soils and groundwater systems. • Potential contaminants such as hydrocarbons and wastewater should be contained on site and disposed of in accordance to municipal wastewater discharge standards to ensure that they do not contaminate soils in the area. • Soil contamination should be monitored on site daily by PR and monthly by ECO. • ECO(s) should ensure that enough number of drip trays are available on-site and that these are utilised in the event of leakage from construction trucks or vehicles.

Environmental Feature	Impact	Management Actions
		• Contaminated soils onsite that may have resulted from leakage/spillage from construction vehicles or equipment should be removed to a depth dependent on the size of the spill and replaced with clean soil. It must then be removed and disposed at a designated landfill site suitable to receive contaminated soil.
Biodiversity	Loss of Biodiversity	• Recommendations and mitigation hierarchy as provided by the vegetation study with regards to the protection of biodiversity in the area should be adhered to during exploration activities. • Trees with a trunk size of 150 mm and bigger should be surveyed, marked with paint (readily visible) and protected. • The Proponent should only, when necessary, remove trees within the actual footprint of the specific exploration activities with permission if required. Trees that are not within the footprint should be left to preserve biodiversity in the area. • If cleared, the numbers of protected, endemic and near endemic species removed should be documented.

Environmental Feature	Impact	Management Actions
		• Trees and plants protected under the Forest Act No 12 of 2001 must not be removed without a valid permit from the local Department of Forestry.
Dust and noise	NUsakosance impacts	• The contractor(s) should subdue dust associated with exploration activities by using a reasonable amount of water. • If feasible, wastewater should be treated to an acceptable water quality level, so that it can be used for exploration purposes (dust suppression). • Noise levels during exploration activities should be kept within the allowable standards for urban areas. • Noise levels should adhere to the SANS restrictions on noise. • The working hours should be restricted to between 08h00 and 17h00 due to the use of heavy equipment, power tools and the movement of heavy vehicles.

Environmental Feature	Impact	Management Actions
		• Noisy equipment should be off when not in use (when not needed) to avoid noise pollution on site and its surroundings. • Workers performing noisy tasks should put on the ear plugs and should be rotated regularly (work on shifts) to avoid exposing them to excessive noise for a long period of time in a day. • Workers should be equipped with personal protective equipment (PPE) such as earplugs to reduce noise exposure. • Workers should ensure that they wear the PPE at all times on work sites.
Health and Safety	Health and safety impacts	• The contractor(s) should ensure that all personnel are provided with personal protective equipment (PPE), such as coveralls, gloves, safety boots, safety glasses and hard hats at all times. • Workers should ensure that they wear the PPE at all times on work sites in an appropriate way. • Alcohol should be prohibited during working hours.

Environmental Feature	Impact	Management Actions
		• No workers should be allowed on site if under the influence of drugs and alcohol. • An appropriate location should be indicated on the site for the parking of operation vehicles. • Public access to the exploration site should be prohibit.
Exploration labourers		• The Proponent should ensure that locals from the surrounding areas are employed for any unskilled labour. • Exploration labourers should not be recruited on-site. • Portable toilets (i.e. easily transportable) should be available on site. • Separate ablutions should be available for men and women and should clearly be indicated as such. • Sewage waste needs to be removed on a regular basis to the nearest approved sewage disposal site. • Workers responsible for cleaning the toilets should be provided with latex gloves, rubber boats, overalls, masks and all the necessary PPE for cleaning.

Environmental Feature	Impact	Management Actions
		• No workers may reside on-site for the entire duration of the exploration period. Only a security guard will be allowed to sleep on-site (if there will be any). • The Proponent or contractor should draft a Communication Plan, which should outline as a minimum the following: o How stakeholders, who require ongoing communication for the duration of the exploration period, will be identified and recorded and who will manage and update these records. o How these stakeholders will be engaged daily. o Provision should be made for a grievance mechanism – outlining how to screen and assess the issues raised and determine how to address them, inclusive of further steps of arbitration if feedback is deemed unsatisfactory.

Environmental Feature	Impact	Management Actions
		○ There should be continues engagement with the stakeholders and affected communities to ensure they are aware of the relevant communication channels and that they are part of the project decision making where needed.
Water	Groundwater contamination	• No wastewater / effluent should be allowed to leave the site premises without proper control. • These should be disposed of in accordance with municipal wastewater discharge standards. • Regular maintenance and surveil of exploration equipment and vehicles should be done to detect early spills or leakages. • An emergency responsive plan should be available for major / minor spills at the exploration site during operation activities (with consideration of air, groundwater, soil and surface water) to prepare the workers on how to respond in cases of emergences.

Environmental Feature	Impact	Management Actions
		• Groundwater impact awareness training should be provided to the employees involved in this phase.
Wildlife and Stock animals	Disturbance of wildlife and stock theft	• Working hours should be limited to during the day, thus enabling the wildlife to roam freely at night. • The contractor is to compile a Non-Theft Policy to which all workers are to comply with. • All exploration workers are to cohere to the Non- Theft Policy.

Phase 4: Rehabilitation and Decommissioning Management Actions

The table below presents the management action for decommissioning phase.

Table 3-4: Decommissioning phase management actions

Environmental Feature	Impact	Management Actions
Employment	Loss of employment	• The Proponent should make aware to the employees, of any intentions to cease the exploration activities, and the expected date of such well in advance. • The Proponent should raise awareness of the possibilities for work in other industrial sectors.
Rehabilitation	Groundwater contamination	• During the initial prospecting phase, only limited surface rock and soil sampling will take place and it is unlikely that any damage be left by this activity. • All waste, defunct samples, and any other remains from the site must be removed.

		• All sample bags, plastic waste, survey pegs, materials used for sump creation etc. from site at completion of sampling schedule must be detached. • Site should be turned back to as close as possible to its original condition. • Re-contour and rip the drill site before the site is finally decommissioned. • Fill holes, rip up, rake track, and spread stockpiled topsoil back over the entire new tracks made, to allow re-vegetation. • Make sure that the ECO has a site inspection prior to and after rehabilitation to check rehabilitation efforts of each drill site.

Site closure and rehabilitation

Rehabilitation is an action for restoring the privilege of a damage done by exploration activities. The core reason for rehabilitation is to revive a damaged/ disturbed environment close to its pre-exploration state. It is also planned to accommodate the access road, vehicle tracks around the site, vegetation removal, abandoned exploration drill holes, and restoration of areas covered by sampling stockpile and rock piles. The closure vision for the proposed project is to establish a safe, stable and non-polluting post- prospecting landscape that can facilitate integrated, self-sustaining and value generating opportunities, thereby leave a lasting positive legacy.

Site closure and rehabilitation activities

All waste (such as hazardous and domestic) will be transported offsite for disposal in licensed landfills in Usakos or other surrounding towns like Karibib. Disturbed or/and contaminated areas will be cleaned up, treated where necessary and restored to its pristine state.

- ✓ Obliteration of camping structures.
- ✓ Unfastening of equipment on site.
- ✓ Removal of associated infrastructures such as storage tanks, solar panels and heavy-duty generators.
- ✓ Where access tracks have been established in cases where there are no roads, these will be rehabilitated and closed as part of normal closure actions in consultation with landowners.
- ✓ Existing secondary roads in the area should be used to prevent damages of the main road.
- ✓ The recovered topsoil and subsoil should be utilized to reconstruct the original soil profile

The rehabilitation actions intended to be undertaken during the recommissioning of the proposed exploration activities are described below.

Remediation of Contaminated Areas

All soil contaminated with hydrocarbons, will be pinned down, excavated, and disposed in accordance with nearest town council disposal requirements at appropriate sites.

- ✓ Removed soils will be managed as determined by the nature and degree of the contamination.
- ✓ All equipment in which chemicals have been stored or transported will be cleaned and disposed of in a suitable disposal facility.

Waste Management

Waste management activities will include:

- ✓ Hazardous waste will be managed handled, classified and disposed.
- ✓ No burring and burying of waste.
- ✓ Nonhazardous substances will be disposed in the nearby landfill sites.
- ✓ If required, temporary salvage yards will be fenced for security reasons, particularly where these are located close to public roads.

4. CONCLUSION AND RECOMMENDATIONS

To conclude, based on the EM given in this EMP, the Consultants is confident that the proposed exploration activities, as described in the EA report be granted an Environmental Clearance Certificate. In adherence to EMP and if the project is monitored and given that all the legal requirements pertaining to this development are complied with. Lastly, provided that the EMP is implemented and that all the legal requirements pertaining to this development are complied with.

The Environmental Management Plan should be used as an on-site and on-going guiding document during all phases of the proposed project, and auditing should take place in order to ensure compliance with the EMP of the proposed project. Parties responsible for transgression of the EMP should be held responsible for any rehabilitation that may need to

be undertaken. Overall, the severity of potential environmental impacts of the proposed project activities on the receiving environment (physical, biological, socioeconomic environments and ecosystem functions) will have low probability of occurrence, localized extent, and low magnitude and temporally duration. This report should be viewed as a framework for integrating mitigation measures and applicable legal tools to ensure both compliance and protection of the environment and its ecosystem. It is therefore vital that the proponent provide adequate support for human and financial resources, for the implementation of the proposed mitigations and effective environmental management during the planned exploration activities.

Recommendations for Monitoring

For the environmental impacts to be avoided and/or minimized, the monitoring measures below must be implemented:

- Monitoring to ensure provisions as set out in the EMP has been complied with.
- Non-compliance is to be recorded and discussed at weekly site meetings and timeous remedial actions taken.
- Should dust and noise complaints be received, abatement measures should be implemented such as water spraying, and continued communication should be held with the aggrieved parties until the noise and dust matters are clarified.

5. REFERENCES

'ACACIA', 2002. Atlas of Namibia Project. Directorate of Environmental Affairs, Ministry of Environment and Tourism.

Ashmole, I., &Motloung, M. (2008). Mineral: the latest trends in exploration and production technology. In *Proceedings of the International Conference on Surface Mining* (Vol. 5, No. 8).Craven, D., &Craven, P. (2000). The Flora of the Brandberg, National Herbarium of Namibia, National Botanical Research Institute.

Schneider, G. & Seeger, K., 1992. Copper. In: s.l.:The Mineral Resources of Namibia, pp. 2.3, 1-172.

ANNEXURE C: LIST OF INTERESTED AND AFFECTED PARTIES

PROJECT TITLE: ENVIRONMENTAL SCOPING ASSESSMENT REORT FOR THE PROPOSED EXPLORATION ACTIVITIES ON EPL 7576

Table 1: THE LIST OF THE REGISTERED INTERESTED AND AFFECTED PARTIES (I&AP)

NAME AND SURNAME	ORGANISATION	POSTAL ADRESS	CONTACT NUMBER	EMAIL
1. Usakos Town Council	Usakos Town Council		0645330599	**Manfriedt.weskop@gmail.com**
2. Mr Ben Uised	Head men Usakos rural		0812732314	**Hoaebgustav42@gmail.com**
3. Mr. Gustavo Hoaeb	Usakos rural headman assistant		0812275769	**ggaoseb@gmail.com**
4. Gotty Gaoseb	Tsiseb Conservancy		+264813479255	**tsisebconservancy@gmail.com**

ANNEXURE D: BACKGROUND INFORMATION DOCUMENT

BACKGROUND INFORMATION DOCUMENT (BID)

ENVIRONMENTAL SCOPING ASSESSMENT (ESA) FOR THE PROPOSED INDUSTRIALS MINERALS, DIMENSION STONE, PRECIOUS METALS, BASE AND RARE METALS MINERAL EXPLORATION ACTIVTIES ON EXCLUSIVE PROSPECTING LICENCE (EPL) 7576 LOCATED IN USAKOS DISTRICT, ERONGO REGION,

PURPOSE OF DOCUMENT

The purpose of Background Information Document (BID), is to provide basic detailed information about the proposed listed activities and to be shared with all registered potential Interested and Affected Parties (I&APs) during public consultation as part of the EIA process. Further BID aims to outline the EIA process and public consultation methods to be followed.

Hence, BID aims to provide:

- An overview of proposed exploration activities on EPL 7576 for industrial minerals, dimension stone, precious metals, base and rare metals mineral groups respectively.
- An overview of the Environmental Impact Assessment process; and
- Guidance on how members of public can participate in the EIA process

I&APs comments and concerns are vital to the success of the EIA process and potential public members are encouraged to register and participate.

Please register / complete registration form and submit to SS Consultants CC on or before the **3rd October 2022**:

Attention: Ms. Anna Nekuta
Address: Unit 24, Bougain Villa, Sam Nuuyoma Road, Windhoek, Namibia
Email: admin@ssconsultants.co
Cell: +264814304609

INTRODUCTION

SS CONSULTANTS CC (hereafter referred to as the consultant), is an independent mineral resource and environmental consulting company has been appointed by **Cadan Minerals And Resources Close Corporation** (here after referred to as Proponent) to undertake an environmental scoping assessment process and obtain environmental clearance certificate on behalf of the latter for the proposed mineral exploration activities on EPL 7576.

The proposed exploration activities fall in the listed activities under the Environmental Management Act 7 of 2007 – activities which may not be undertaken without Environmental Clearance Certificate. Hence the proponent is expected to obtain an Environmental Clearance Certificate from the Environmental Commissioner prior to the commencing of these exploration activities.

The proposed development is therefore related to the specific listed activities as outline by relevant sections in EMA Regulations of 2012:

- *Construction of facilities for any process or activities which requires a license, right or other form of authorisation, and the renewal of a license, right or other form of authorisation, in terms of the Minerals (Prospecting and Mining Act), 1992 (Section 3.1);*
- *Other forms of mining or extraction of any natural resources whether regulated by law or not (Section 3.2);*
- *Resource extraction, manipulation, conservation, and related activities (Section 3.3);*
- *Abstraction of ground or surface water for industrial or commercial purposes (Section 8.1).*
- *Manufacturing, storage, handling, or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974 (Section 9.1).*

- *Any process or activity which requires …….. (Section 9.2).*

1. Project Description

The license was issued to **Cadan Minerals And Resources Close Corporation** by the Ministry of Mines and Energy MME to explore for various mineral groups as described in the previous sections. The license was granted on **25/10/2019** and will expire on **24/10/2022**. The license tenure may be extended for further two years by renewal of the rights if the Minister of MME is satisfied with the previous demonstrable progress shown as per Section 72. The project area is made up of one EPL license which may be converted to Mining License (s) if an economically viable deposit is discovered and the licensing requirements of the latter are met. The proposed activities of exploration will involve both non-invasive and invasive exploration methods. Non-invasive exploration methods usually include remote sensing, geological field mapping, ground geophysical survey and surface soil sampling. whereas invasive exploration methods include techniques such as reverse circulation or diamond drilling and pitting/trenching. Non-invasive exploration activities will be undertaken first in order to define the need for more invasive activities. Should the results from the non-invasive activities be positive the detailed site-specific drilling, trenching, and sampling will be undertaken. The license falls within a well serviced area with infrastructure, such as water line, national roads, railways, telephones, petrol stations (Usakos, Arandis, Swakopmund, Walvis Bay) and 3-phase electricity from NamPower. Therefore the applicant will use the exisiting water and electrical infrastructure in the area.

Therefore, to define the resource various geological consultants and contractors will be appointed during different exploration phases. The various exploration methods will produce results which will then determine the next method to be used. Therefore, a geophysics expert will potentially be contracted during exploration to conduct geophysical surveys whether it is on the ground or air. In addition, drilling will be executed by an appointed registered drilling contractor, and it is expected that they will have their own workforce (drilling crew). Furthermore, temporary employment will potentially be available for graduate Geologists (2 positions) and Technicians (2 positions) for the purpose of geological mapping and geochemical surveys. The nearest populated towns are Arandis, Swakopmund and Walvis Bay from which unskilled labour can be sourced from. It is anticipated that the workforce will be housed in temporary site camps or may reside in the nearest towns throughout the exploration.

2. Project Location

EPL 7576 is situated in the North-western direction of Usakos town, within the Erongo region. Access to the area is via the B2 tarred road from Usakos to Arandis than take the D1930 dirt road that passes through the license area see Figure 1. The EPL covers a total surface area of about 353.552 hectares.The main land use of the area within and outside the EPL is predominated by state land and other forms of human settlements.

Figure 1: Map depicting the coverage of EPL 7576 and corner coordinates of the license area

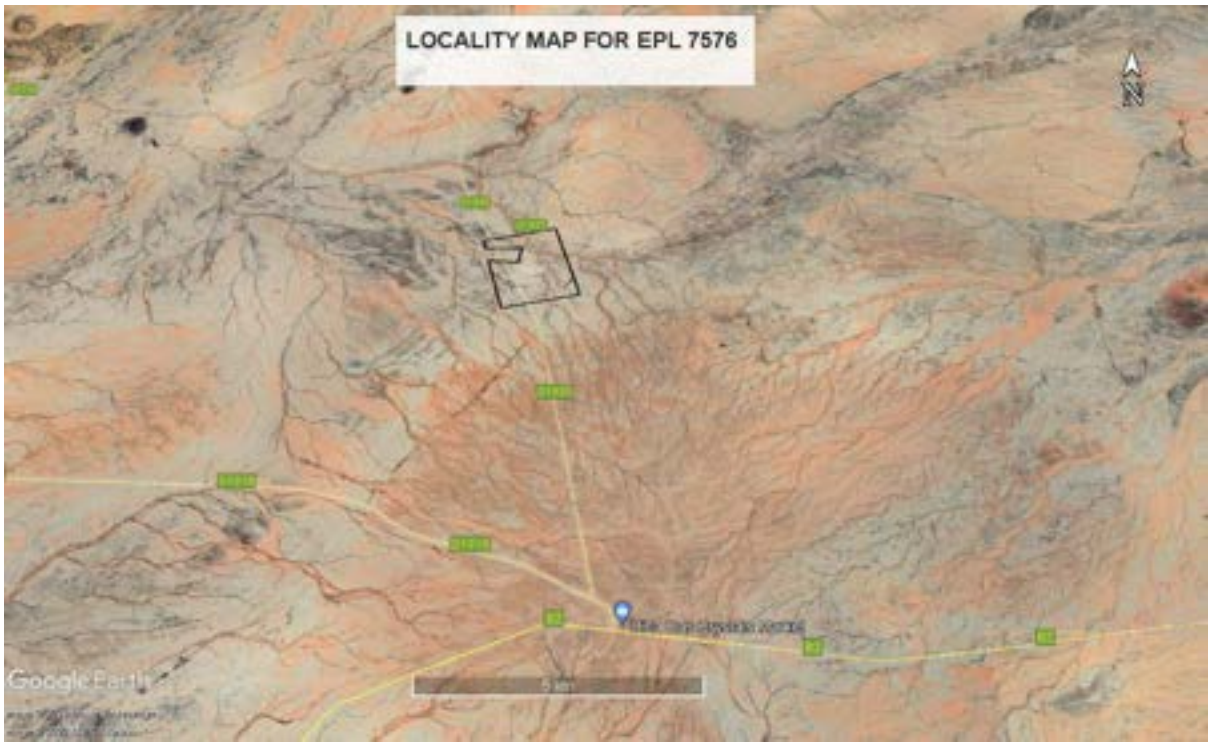
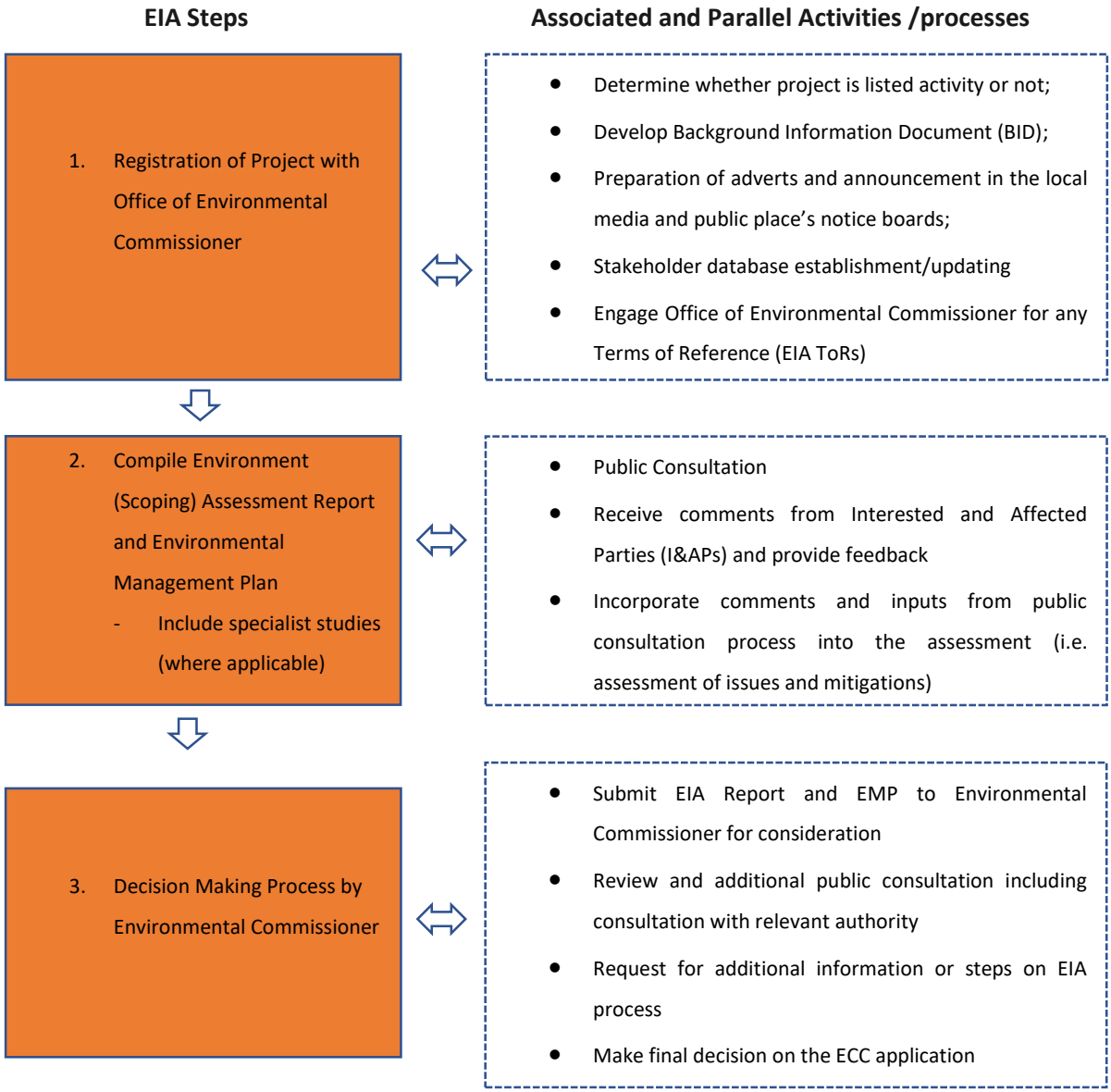


Figure 2: Google image showing the locality for EP 7576.

3. Environmental Impact Assessment process

The EIA process follows the general guideline as outlined in the 2012 EIA regulations of the EMA. The process followed is summarized below.



4. Potential Impacts

Below are the potential impacts have been identified from the proposed exploration activities on the license area:

- **Temporary job creation** this is the hiring of workers non-skilled to skilled workers from the area to be involved during the clearing of the fauna and flora in order to access target sites, and to also assist during pitting and trenching as well as drilling and associated exploration works.

- **Impact on vegetation and fauna:** some vegetation may need to be removed to create access roads, pitting and trenching, geophysical lines as well as drilling sites. This may also lead to habitat destruction for some fauna.
- **Traffic safety:** very slow drilling rigs and associated vehicles may compromise traffic safety in the area.
- **Environmental degradation** through different types of waste generated on the site.
- **Soils and water contamination** from chemicals and other substances used in drilling fluids.
- **Noise and dust** generated by pitting and trenching as well as drilling vehicles and activities.
- **Health and safety risks** which may result to workers operating on site.
- **Archaeological and Heritage Impacts** if these sites are located close to the planned exploration area.

5. Public consultation

Public participation is an essential part of any Environmental Assessment process. Interested and Affected Parties (I&APs) include any person or organization that will be directly or indirectly involved and/or affected by the project.

Registered I&APs will be kept informed of the Public Participation Process throughout the Environmental Assessment process, they will be given the opportunity to review and comment on the EIA reports and documents, will also receive feedback on how comments have been taken into account, and will be informed of the outcome of the assessment. All comments will be recorded and presented to the project team and competent authority by means of the Project Comments and Responses Register (CRR).

Notices for public invitation to participate in the process will still be placed in the local newspaper as well as at strategic public places (notice boards). The date and venue for the public consultation meeting will be communicated..

If you categorize yourself as an I&AP who wishes to receive information regarding the above-mentioned project and/or provide input into the Environmental Impact Assessment process, you are hereby invited to register using the Form on Page 5. You may also communicate with SS Consultants via email, or telephone to obtain further information or comment on the proposed project.

Contact details:

Ms. Anna Nekuta

Environmental Specialist (Environmental Assessment Practitioner)

SS Consultant CC

Physical Address: Unit 24B**,** Bougain Villa**,** Sam Nuuyoma Road**,** Windhoek**,** Namibia

Email: admin@ssconsultants.co

Mobile number: +26481 430 4609

REGISTRATION OF INTERESTED AND AFFECTED PARTIES (I&APs)

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED INDUSTRIALS MINERALS, DIMENSION STONE, PREVIOUS METALS, BASE AND RARE METALS MINERAL GROUPS EXPLORATION ACTIVTIES ON EPL No.7576 LOCATED IN USAKOS DISTRICT, ERONGO REGIONS, NAMIBIA

Ms. Anna Nekuta
Environmental Specialist (Environmental Assessment Practitioner)

SS Consultant Cc
Physical Address: Unit 24, Bougain Villa, Sam Nuuyoma Road, Windhoek, Namibia
Email: admin@ssconsultants.co
Cell: +264 81 430 4609

Title (Mr/Ms/Dr/Prof)		**Name**/Initials	
Surname			
Interested Parties or		**Affected Parties?**	
Physical Address and or Postal Address			
Tel No:		**Cell No:**	
Email Address:			
Comments/Issues/Concerns (Please if the space is not enough, use additional separate sheet)			

ANNEXURE E: NEWSPAPER ADVERTS

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES (EPL No. 7470)

Notice is hereby placed to inform all potentially interested and Affected Parties (I&APs) that an application for Environmental Clearance Certificate will be made to the Environmental Commissioner, in line with provisions of Environmental Management Act 7 of 2007 and its Regulations of 2012, in respect of envisaged exploration activities for industrials minerals, dimension stone, precious metals, base and rare metals mineral groups.

Project Location: EPL 7470 is located about 9 km SSW from Uis Settlement, Erongo Region and it covers state land

Proponent: Ms. Frieda Namukenya Nambahu

All Interested and Affected Parties (I&APs) are cordially invited to participate in public consultation meeting on the 4th of November 2022 in Uis. Registration, as well as submissions of I&APs comments (including the request for the Background Information Document), must be done on or before 28th of October 2022, to:

Ms. Anna Nekuta
Environmental Specialist (EAP)
SS Consultants CC
Cell: 081 430 4609
Email: admin@ssconsultants.co

SS CONSULTANTS

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES (EPL No. 8100)

Notice is hereby placed to inform all potentially interested and Affected Parties (I&APs) that an application for Environmental Clearance Certificate will be made to the Environmental Commissioner, in line with provisions of Environmental Management Act 7 of 2007 and its Regulations of 2012, in respect of envisaged exploration activities for industrial minerals, precious metals, base and rare metals mineral groups.

Project Location: EPL 8100 is located roughly 20 km SE from Uis Settlement, Erongo Region and it covers state land.

Proponent: Mr. Eino Ehange Tekela Shaanika

All Interested and Affected Parties (I&APs) are cordially invited to participate in public consultation meeting on the 4th of November 2022 in Uis. Registration, as well as submissions of I&APs comments (including the request for the Background Information Document), must be done on or before the 28th of October 2022, to:

Ms. Anna Nekuta
Environmental Specialist (EAP)
SS Consultants CC
Cell: 081 430 4609
Email: admin@ssconsultants.co

SS CONSULTANTS

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES (EPL No. 7698)

Notice is hereby placed to inform all potentially interested and Affected Parties (I&APs) that an application for Environmental Clearance Certificate will be made to the Environmental Commissioner, in line with provisions of Environmental Management Act 7 of 2007 and its Regulations of 2012, in respect of the envisaged exploration activities for industrials minerals, precious metals, base and rare metals mineral groups.

Project Location: EPL 7698 is located roughly 20 km SW of Okombahe settlement, Uis District, Erongo Region, and it covers state land.

Proponent: Ms. Joyce Maryambango Muwetu

All Interested and Affected Parties (I&APs) are cordially invited to participate in public consultation meeting on the 4th of November 2022 in Uis. Registration, as well as submissions of I&APs comments (including the request for the Background Information Document), must be done on or before 28th of October 2022, to:

Ms. Anna Nekuta
Environmental Specialist (EAP)
SS Consultants CC
Cell: 081 430 4609
Email: admin@ssconsultants.co

SS CONSULTANTS

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES (EPL No. 7469)

Notice is hereby placed to inform all potentially interested and Affected Parties (I&APs) that an application for Environmental Clearance Certificate will be made to the Environmental Commissioner, in line with provisions of Environmental Management Act 7 of 2007 and its Regulations of 2012, in respect of the envisaged exploration activities for industrials minerals and nuclear fuel mineral groups:

Project Location: EPL 7469 is located roughly 20 km SW from Uis settlement, Erongo Region and it covers state land.

Proponent: Ms. Frieda Namukenya Nambahu

All Interested and Affected Parties (I&APs) are cordially invited to participate in public consultation meeting on the 4th of November 2022 in Uis. Registration, as well as submissions of I&APs comments (including the request for the Background Information Document), must be done on or before 28th of October 2022, to:

Ms. Anna Nekuta
Environmental Specialist (EAP)
SS Consultants CC
Cell: 081 430 4609
Email: admin@ssconsultants.co

SS CONSULTANTS

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES (EPL No. 7576)

Notice is hereby placed to inform all potentially interested and Affected Parties (I&APs) that an application for Environmental Clearance Certificate will be made to the Environmental Commissioner, in line with provisions of Environmental Management Act 7 of 2007 and its Regulations of 2012, in respect of proposed envisaged exploration activities for industrials minerals, dimension stone, precious metals, base and rare metals mineral groups:

Project Location: EPL 7576 is located roughly 30 km NW from Usakos town, Erongo Region and it covers state land.

Proponent: Caldan Minerals And Resources Close Corporation

All Interested and Affected Parties (I&APs) are cordially invited to participate in public consultation meeting on the 3rd of November 2022 in Usakos. Registration, as well as submissions of I&APs comments (including the request for the Background Information Document), must be done on or before 28th of October 2022, to:

Ms. Anna Nekuta
Environmental Specialist (EAP)
SS Consultants CC
Cell: 081 430 4609
Email: admin@ssconsultants.co

SS CONSULTANTS

EXPRESSION OF INTEREST

First date of publication: 24 October 2022

DEMINED443: PRESSURE EQUIPMENT TESTING, INSPECTION AND CERTIFICATION

DESCRIPTION:

Debmarine Namibia is seeking an experienced service provider for Pressure Equipment Testing, Inspection and Certification

DOCUMENTS TO SUBMIT:

1. Company profile
2. Approved Inspection Authority registration for pressure equipment of technician(s)
3. Portfolio of evidence showing competence in applicable ASME and API standards
4. Verifiable reference projects applicable to the scope

CLOSING DATE: Registered businesses providing such services are requested to submit the required documentation with Reference Number **DEMINED443** by 18 November 2022 at 12h00.

ENQUIRIES:
The Procurement Officer
Tel: +264 61 207 8460
Email: **Tenders@debmarine.com**
Subject line: DEMINED443 – PRESSURE EQUIPMENT TESTING, INSPECTION AND CERTIFICATION

DISCLAIMER:
Debmarine Namibia shall not be responsible for any costs incurred in the preparation and submission of a response to this Expression of Interest and furthermore reserves the right not to extend this Expression of Interest into any future tenders, negotiations and or engagements.

Debmarine Namibia shall not accept submissions rendered after the closing date and time.

DEBMARINE

Nam Geo-Enviro Solutions

ENVIRONMENTAL IMPACT ASSESSMENT

NOTICE TO ALL INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA, ONIPA TOWN, OSHIKOTO REGION, NAMIBIA.

Notice is hereby served to inform all potentially interested and/or Affected Parties that an application will be made to the Environmental Commissioner in accordance with the provision of the Environmental Management Act (No. 7 of 2007) and the Environmental Assessment Regulations (2012) for the following intended activity:

Proponent: Transpetro Group Namibia Pty (Ltd)

Project Location: The proposed site is situated in Onamulunga, Onipa Town, Oshikoto Region, Namibia.

Project Description: Transpetro Group Namibia Pty (Ltd) intends to construct a new fuel storage and handling facility in Onamulunga, Onipa Town. The new depot will be used as fuel storage, handling, and distribution facility.
As part of the listed activities that cannot be carried out without an environmental clearance certificate (ECC) an EIA will be done to assess the impacts associated with the construction and operation of the project.

Environmental Consultant: Nam Geo-Enviro Solutions (NGS) has been appointed by Transpetro Group Namibia Pty (Ltd) as an independent environmental consultancy to conduct an environmental impact assessment for the project.

All Interested and Affected Parties (I&APs) are invited to register with this study. A Background Information Document (BID) can be requested from NGS via email.

A public meeting has been scheduled to take place as follow:

Venue: Punyu International Hotel Conference Hall (Ondangwa)
Date: 27 October 2022
Time: 10.30

Issues, comments, and opinions should be submitted in writing to Nam Geo-Enviro Solutions before 7th November 2022

Contact person: Ms Ndapanda Hasholo
Tel/Fax: +264 61 402 246
Email: ppp@geoenvirosol.co.za

NOTICE OF INTENTION TO APPLY FOR REZONING

Please take note that Asinovative Planning Consultant, in terms of the Urban and Regional Act, Act No.5 of 2018, intends to apply to the Omuthiya Town Council and the Urban and Regional Planning Board on behalf of the registered owner of Erf 2135 Omuthiya, Extension 8 to rezone Erf 2135 Omuthiya, Extension 8 from 'Residential' to 'General Residential' with a density of 1 per 100 m2. Erf 2135 Omuthiya, Extension 8 is zoned 'Residential' in terms of the Omuthiya Zoning (Town Planning) Scheme and measures 1,025 m2 in size. The owner intends to construct flats on the subject erf once the erf is rezoned.

Please further take note that the plan of the erf or land lies for inspection at the Offices of the Omuthiya Town Council. Further, take note that any person having objections to the rezoning concerned or who wants to comment, may in writing lodge such objections and comments, together with the grounds, with the Acting Chief Executive Officer, Omuthiya Town Council, P.O. Box 15302, Omuthiya and with the applicant within 14 business days of the last publication of this notice, i.e. no later than **11th November 2022**

Asinovative
Asinovative Planning Consultant
P.O. Box 61503, Olympia, Windhoek
asinovative@gmail.com

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES (EPL No. 7576)

Notice is hereby placed to inform all potentially Interested and Affected Parties (I&APs) that an application for Environmental Clearance Certificate will be made to the Environmental Commissioner, in line with provisions of Environmental Management Act 7 of 2007 and its Regulations of 2012, in respect of proposed exploration activities for industrials minerals, dimension stone, precious metals, base and rare metals, mineral exploration activities.

Project Location: EPL 7576 is located roughly 30 km NW from Otjiwa town, Erongo Regions and it covers state land.
Proponent: Caribi Minerals And Resources Close Corporation

All Interested and Affected Parties (I&APs) are cordially invited to participate in public consultation meeting on the 15th of November 2022 in Otjiwa. Registration, as well as submissions of I&APs comments (including the request for the Background Information Document), must be done on or before 28th of October 2022, to:

Ms. Anna Nekuta
Environmental Specialist (EAP)
SS Consultants CC
Cell: 081 430 4609
Email: admin@sscconsultants.co

SS CONSULTANTS

ENVIRONMENTAL IMPACT ASSESSMENT

NOTICE FOR THE PROPOSED ESTABLISHMENT OF A SMELTER PLANT AT WALVIS BAY IN ERONGO REGION.

OUTRUN CONSULTANTS CC HEREBY GIVES NOTICE OF THE ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED ESTABLISHMENT OF SMELTERS AND THE MANUFACTURING OF VARIOUS METAL AND PLASTIC PRODUCTS AT WALVIS BAY. The Smeltars and manufacturing plants will be located at Pioneer Industrial Estate at the corner of C14 and C34 roads. An EIA is being commissioned as required under the Environmental Management Act, 7 of 2007 and Regulations of 2012. Interested and Affected Parties are invited to register and attend meetings as detailed below.

PROPONENT(S): KONTINENTAL ENDUSTRIAL PRODUCTS (PTY) LTD

PROJECT ACTIVITIES: CONSTRUCTION & OPERATION OF SMELTER AND THE MANUFACTURING OF VARIOUS METAL AND PLASTIC PRODUCTS

PROJECT LOCATION: FARM 58 WALVIS BAY –ERONGO REGION – MAP IS PROVIDED IN THE BID

PUBLIC PARTICIPATION: OUTRUN CONSULTANTS CC IS INVITING YOU TO REGISTER AS INTERESTED AND AFFECTED PARTIES AND ATTEND MEETINGS TO BE HELD ONSITE AS FOLLOWS:

DATE: 14 October 2022 TIME: 1000HRS

DEADLINE FOR REGISTRATION AND COMMENTS 21ST OF OCTOBER 2022

Contact Person: Josiah - 0812 683 578, E-Mail: outrungreeninfo@gmail.com

outrun consultants
"RESEARCH, TRAINING & CAPACITY BUILDING"

» *Food prices cooling down*

South Africa's inflation cools slightly to 7.5%

This was partly due to lower fuel prices, after petrol and diesel prices were lowered at the start of September.

STAFF REPORTER

Annual consumer price inflation eased to 7.5% in September from 7.6% in August, which was slightly better than economists expected.

Still, it's clear that South Africans continue to suffer from ever-widening price increases.

Annual food and non-alcoholic beverage inflation increased to 11.9% from 11.3% in August, with bread and cereal prices up 19.3% from a year before – the biggest increase in 13 years. Still, Statistics South Africa says that food prices are showing signs of easing down.

The 0.5% monthly increase in food and beverage prices was lower than the 1.8% monthly rise recorded in August. Prices for sunflower oil slumped by 8.0% in a single month, with the average price of a 750ml bottle of cooking oil falling to R41.38 from a high of R45.33 in July. "Despite this decrease, the price is still significantly higher than the R30.98 consumers paid in September 2021," noted Statistics SA.

> *Despite this decrease, the price is still significantly higher than the R30.98 consumers paid in September 2021..*
>
> **Statistics SA**

Annual meat inflation was 9.9%, but the monthly change slowed from 0.7% to 0.3%. However, September's inflation data showed worrying increases in other prices.

Personal care products were 8.3% higher than a year ago – the highest annual increase since December 2009. The monthly increase for personal care products was 1.9%, more than double the 0.8% recorded in August, Statistics SA reported.

Clothing and footwear prices rose by 2.8% from September 2021, the fastest annual increase in more than four years.

The latest consumer inflation number also includes rental data, which showed an annual increase of 2.8%, the highest reading seen before the pandemic, in February 2020.

The annual consumer inflation number of 7.5% is lower than the 7.9% median expectation of the 13 economists that Bloomberg surveyed.

Prices also rose by only 0.1% from August to September, from a monthly rise of 0.2% in August.

This was partly due to lower fuel prices, after petrol and diesel prices were lowered at the start of September. This slowed the annual fuel price inflation rate to 34.1%, down from a high of 56.2% reported in July.

-Nsia

Nam Geo-Enviro Solutions

ENVIRONMENTAL IMPACT ASSESSMENT

NOTICE TO ALL INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CONSTRUCTION AND OPERATIONS OF A NEW FUEL BULK STORAGE AND HANDLING FACILITY (DEPOT) AT ONAMULUNGA, ONIIPA TOWN, OSHIKOTO REGION, NAMIBIA,

Notice is hereby served to inform all potentially Interested and/or Affected Parties that an application will be made to the Environmental Commissioner in accordance with the provision of the Environmental Management Act (No. 7 of 2007) and the Environmental Assessment Regulations (2012) for the following intended activity:

Proponent: Transpetro Group Namibia Pty (Ltd)

Project Location: The proposed site is situated in Onamulunga, Oniipa Town, Oshikoto Region, Namibia.

Project Description: Transpetro Group Namibia Pty (Ltd) intends to construct a new fuel storage and handling facility in Onamulunga, Oniipa Town. The new depot will be used as fuel storage, handling, and distribution facility.
As part of the listed activities that cannot be carried out without an environmental clearance certificate (ECC) an EIA will be done to assess the impacts associated with the construction and operation of the project.

Environmental Consultant: Nam Geo-Enviro Solutions (NGS) has been appointed by Transpetro Group Namibia Pty (Ltd) as an independent environmental consultancy to conduct an environmental impact assessment for the project.

All Interested and Affected Parties (I&APs) are invited to register with this study. A Background Information Document (BID) can be requested from NGS via email.

A public meeting has been scheduled to take place as follow:

Venue: Punyu International Hotel Conference Hall (Ondangwa)
Date: 27 October 2022
Time: 16:30

Issues, comments, and opinions should be submitted in writing to Nam Geo-Enviro Solutions before 7th November 2022

Contact person: Ms Ndapanda Hasholo
Tel/Fax: +264 61 402 246
Email: ppp@geoenvirosol.co.za

PUBLIC NOTICE
ENVIRONMENTAL IMPACT ASSESSMENT FOR EXPLORATION ACTIVITIES (EPL No. 7576)

Notice is hereby placed to inform all potentially Interested and Affected Parties (I&APs) that an application for Environmental Clearance Certificate will be made to the Environmental Commissioner, in line with provisions of Environmental Management Act 7 of 2007 and its Regulations of 2012, in respect of proposed exploration activities for industrials minerals, dimension stone, precious metals, base and rare metals mineral exploration activities:

Project Location: EPL 7576 is located roughly 30 km NW from Usakos town, Erongo Regions and it covers state land.
Proponent: Cadan Minerals And Resources Close Corporation

All Interested and Affected Parties (I&APs) are cordially invited to participate in public consultation meeting on the 5th of November 2022 in Usakos. Registration, as well as submissions of I&APs comments (including the request for the Background Information Document), must be done on or before 28th of October 2022, to:

Ms. Anna Nekuta
Environmental Specialist (EAP)
SS Consultants CC
Cell: 081 430 4609
Email: admin@ssconsultants.co

SS CONSULTANTS

NOTICE OF INTENTION TO APPLY FOR REZONING

Please take note that Asinovative Planning Consultant, in terms of the Urban and Regional Act, Act No 5 of 2018, intends to apply to the Omuthiya Town Council and the Urban and Regional Planning Board on behalf of the registered owner of Erf 2135 Omuthiya, Extension 8 to rezone Erf 2135 Omuthiya, Extension 8 from 'Residential' to 'General Residential' with a density of 1 per 100 m2. Erf 2135 Omuthiya, Extension 8 is zoned 'Residential' in terms of the Omuthiya Zoning (Town Planning) Scheme and measures 1,025 m2 in size. The owner intends to construct flats on the subject erf once the erf is rezoned.

Please further take note that the plan of the erf or land lies for inspection at the Offices of the Omuthiya Town Council. Further, take note that any person having objections to the rezoning concerned or who wants to comment, may in writing lodge such objections and comments, together with the grounds, with the Acting Chief Executive Officer, Omuthiya Town Council, P.O. Box 19262, Omuthiya and with the applicant within 14 business days of the last publication of this notice, i.e. no later than **11th November 2022**.

Asinovative

Asinovative Planning Consultant
P.O. Box 81555, Olympia, Windhoek
asinovative@gmail.com

NOTICE FOR
ENVIRONMENTAL IMPACT ASSESSMENT

Environclim Consulting Services cc hereby gives notice to all potentially Interested and Affected Parties (I&APs) that an application will be made to the Environmental Commissioner in terms of the Environmental Management Act (No 7 of 2007) and Environmental Impact Assessment Regulations (GN 30 of 6 February 2012) for the following:

PROJECT NAMES:

Environmental Impact Assessment (EIA) for the establishment of mining activities on two (2) Mining Claims no; 73787 & 73788, in Usakos District, Erongo Region.

PROJECT LOCATION: The mining claims are situated approximately 16 Km north of Usakos within the Khorixas, Erongo Region.

PROJECT DESCRIPTION:
The project involves conducting an Environmental Impact Assessments (EIA) for the establishment of mining activities of semi-precious stones and industrial mineral at the above mining claims.

PROJECT INVOLVEMENT:

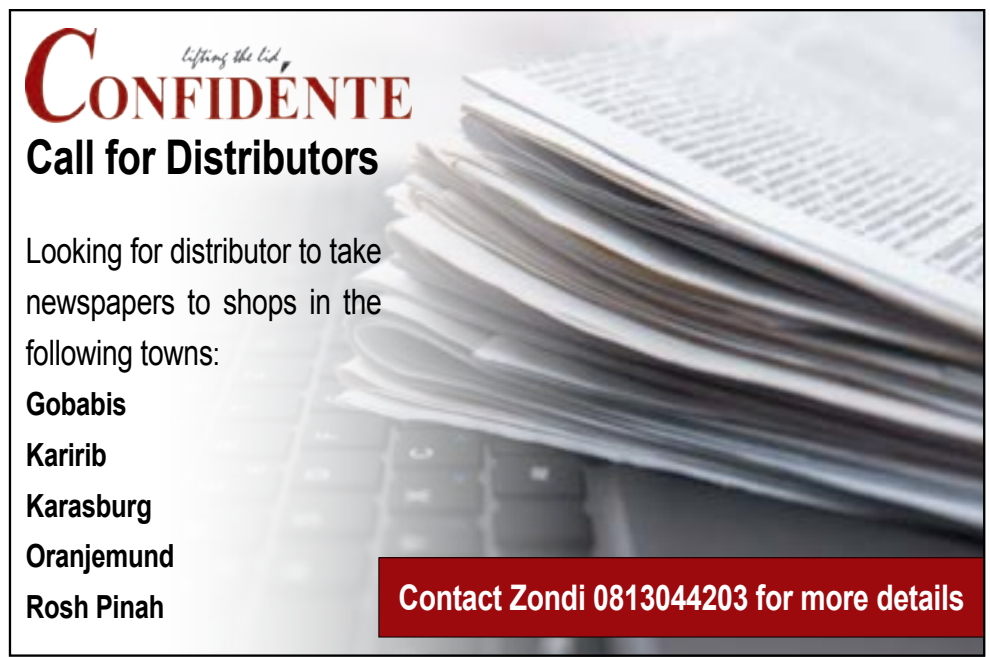
Proponent: Mr Matti Shigwedha

Environmental Assessment Practitioner (EAP): Environclim Consulting Services cc

REGISTRATION OF I&APs AND SUBMISSION OF COMMENTS: In line with Namibia's Environmental Management Act (No. 7 of 2007) and EIA regulations (GN 30 of 6 February 2012), all I&APs are hereby invited to register and submit their comments, concerns or questions in writing via: Email; environclim@gmail.com on or before Friday 19th November 2022.

A public participation meeting will be held as follows:
Place: Traditional Authority Hall, Usakos
Date: 05 November 2022
Time: 10h30
Contact: +264 812705001
Email: environclim@gmail.com

EnvironClim Consulting Services



ANNEXURE F: EMAIL CORRESPONDENCE

Public Consulting Meeting

Anna Nekuta Admin @ SS Consultants <admin@ssconsultants.co>

Mon 2/20/2023 8:25 PM

To:Gotty Gaoseb <ggaoseb@gmail.com>

Dear Mr. Gotty Gaoseb

We would like to officially invite you for the public consultation meeting to discuss the Exclusive Prospecting License (EPL No. 7576) Environmental Assessment in order to obtain an Environmental Clearance Certificate ECC to be able to conduct exploration activities in the EPL area. The proposed date is Saturday, 25th February 2023 in Usakos, the venue is yet to be decided and will be communicated in due course.

In the meantime have attached a Backround Information Document for your perusal and in due course, I will share the EA report as well. kindly take note that the initial consultation was scheduled for the 4th of November in Usakos but it was postponed because only a few I&AP have reached out to the company and the other reason is that the Paramount Gaob of the ≠Nukhoen/Damara is hosting the annual Gaob Festival in Okombahe from the 4th to the 6th of November 2022.

Your attendance will be valued.

Kind Regards
Anna Nekuta
Senior Geologist & Environmental Specialist
SS

Public Consultation Meeting

Anna Nekuta Admin @ SS Consultants <admin@ssconsultants.co>

Mon 2/20/2023 5:45 PM

To:Hoaebgustav42@gmail.com <Hoaebgustav42@gmail.com>

1 attachments (1 MB)

Background Information Document BID_EIA for EPL_7576.pdf;

Dear Mr. Gustavo,

As per the telephonic discussion with Mr. Silvanus today, who promised to send you an official correspondence and meeting request for the public consultation to discuss the Exclusive Prospecting License (EPL No. 7576) Environmental Assessment in order to obtain a Environmental Clearance Certificate ECC to be able to conduct exploration activities on the EPL area. the proposed date is Saturday, 25th February 2023 in Usakos, the venue is yet to be decided and will be communicated in due course.

In the mean tie i have attached a Backround Information Document for your perusal and in due course i will share the EA report as well. kindly take note that the initial consultation was scheduled for the 4th of November in Usakos but it was postponed because only a few I&AP have reached out to the company and the other reason is that the Paramount Gaob of the ≠Nukhoen/Damara is hosting the annual Gaob Festival in Okombahe from the 4th to the 6th of November 2022.

Regards,
SS

Anna Nekuta
Senior Geologist & Environmental Specialist

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR THE PROPOSED EXPLORATION ACTIVITIES ON EXCLUSIVE PROSPECTING LICENSE (EPL) 7576 IN THE ERONGO REGION

SS Consultants <info@ssconsultants.co>

Thu 7/20/2023 2:05 AM

Cc:Anna Nekuta Admin @ SS Consultants <admin@ssconsultants.co>

Bcc:Manfriedt.weskop@gmail.com <Manfriedt.weskop@gmail.com>;Hoaebgustav42@gmail.com <Hoaebgustav42@gmail.com>;ggaoseb@gmail.com <ggaoseb@gmail.com>;Tsiseb Conservancy Conservancy <tsisebconservancy@gmail.com>

2 attachments (8 MB)

Emp report for EPL_7576_final.docx; ESA report EPL_7576_Final.docx;

Dear Interested and Affected Party,

Following our previous communications from admin@ssconsultants.

SS Consultants CC (SS) hereby gives notice to all Registered I&APs that the Draft Environmental Scoping Report (DESR) is now available for the above proposed project for public comment from the **20th of July 2023 until the 27th of July 2023.** An electronic copy of the full reports are available and thus attached to the email.

Should you wish to comment on the proposed project, kindly do so in writing on or before 27th **of July 2023** at the below contact information**.**

Anna Nekuta
E-mail: info@ssconsultants.co
Tel: +264812409124

Kind Regards,
SS

ANNEXURE G: SITE NOTICES

Caption 1: Public Notice for EPL 7576 posted at the Usakos Police station

Caption 2: Public notice posted in the Usakos Main road

Caption 3: Public notice fo rEPL 7576 posted at the Kiosk for the small scale miners enroute to Uis.

ANNEXURE H: MEETING MINUTES

ANNEXURE I: ARCHAEOLOGICAL DESK ASSESSMENT

ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENT REPORT FOR MINERALS EXPLORATION ON AN EXCLUSIVE PROSPECTING LICENSE (EPL) NO. 7576, USAKOS, REGION, NAMIBIA

Compiled by:

Henry Nakale [Bachelor of Arts Honours Degree in Archaeology, Museums and Heritage Studies] (GZU), [Bachelor of Social Science in Heritage and Museum Studies] (UP), [Masters of Social Science in Tangible Heritage Conservation & Management] (UP).

and

Dr. Mowa Eliot, Maritime Archaeology University of Bristol. PhD Archaeology (UP).

Compiled for:

Uis – Chi Investment Namibia CC

Table 1; Project Description

Item	Description
Proposed development and location	**Uis – Chi Investment Namibia CC(The Proponent)** is intending to carry out exploration activities on Exclusive Prospecting License (EPL) 7576 to explore for various minerals. The EPL 7576 is situated in the North-western direction of Usakos town, within the Erongo region, Namibia. The EPL covers a total surface area of about 353.552 hectares' and is situated in communal owned land.
Title	**ASSESSMENT REPORT FOR MINERALS EXPLORATION ON AN EXCLUSIVE PROSPECTING LICENSE (EPL) NO. 7576, ERONGO, REGION, NAMIBIA**
Purpose of the study	The purpose of this document is an Archaeological and Heritage Impact Assessment report that describes the cultural values and heritage factors that may be impacted on by the proposed exploration activities.
Coordinates	EPL Centered at **21°54'9.00" S 15°20'36" E** Usakos, District
Municipalities	Usakos, ERONGO region
Predominant land use of surrounding area	Farming and Mining
Proponent	**Uis – Chi Investment Namibia CC**
Heritage Consultant	OTAH & ESM Cultural Heritage Consultants **(JV)**
Date of Report	16 January 2020
Contact person	Henry Nakale +264816680633
Author(s) identification	Henry Nakale, Dr. Eliot Mowa (Archaeologists and Heritage specialists)

In terms of land ownership, the land – the area under study falls on state land (communal area).

Copyright

Authorship: This A/HIA Report has been prepared by Mr. Henry Nakale and Dr. Eliot Mowa. The report is for the review of the National Heritage Council of Namibia.

Geographic Co-ordinate Information: Geographic co-ordinates in this report were obtained using a hand-held Garmin Global Positioning System device. The manufacturer states that these devices are accurate to within +/- 5 m.

Maps: Maps included in this report use data extracted from the NTS Map and Google Earth Pro.

Disclaimer: The Authors are not responsible for omissions and inconsistencies that may result from information not available at the time this report was prepared.

The Archaeological and Heritage Impact Assessment Study was carried out within the context of tangible and intangible cultural heritage resources as defined by the National Heritage Council Regulations and Guidelines as to the authorisation of proposed exploration project being proposed **Uis – Chi Investment Namibia CC.**

DECLARATION

We hereby declare that we do:

1. have knowledge of and experience in conducting archaeological assessments, including knowledge of Namibian legislation, specifically the National Heritage Act (27 of 2004), as well as regulations and guidelines that have relevance to the proposed activity;

2. perform the work relating to the application in an objective manner, even if this results in views and findings that are not favorable to the applicant;

3. comply with the aforementioned Act, relevant regulations, guidelines and other applicablelaws. We also declare that we have no interests or involvement in:
   (i) the financial or other affairs of either the applicant or his consultant; and
   (ii) the decision-making structures of the National Heritage Council of Namibia.

Signed by:

Acronyms

Abbreviation/Acronyms	Description/Definition
AIA	Archaeological Impact Assessment
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
LIA	Late Iron Age
NHA	Nation Heritage Act, Act 27 of 2004
SM	Site Manager
NHCN	National Heritage Council of Namibia
ESA	Later Stone Age
EPL	Exclusive Prospecting License
ECC	Environmental Clearance Certificate
CFP	Chance Find Procedure
EMA	Environmental Management Act

Key Concepts and Terms

Periodization Archaeologists divide the different cultural epochs according to the dominant material finds for the different time periods. This periodization is usually region-specific, such that the same label can have different dates for different areas. This makes it important to clarify and declare the periodization of the area one is studying.

These periods are nothing a little more than convenient time brackets because their terminal and commencement are not absolute and there are several instances of overlap. In the present study, relevant archaeological periods are given below;

Early Stone Age (~ 2.6 million to 250 000 years ago)

Middle Stone Age (~ 250 000 to 40-25 000 years ago)

Later Stone Age (~ 40-25 000, to recently, 100 years ago)

Early Iron Age (~ AD 200 to 1000)

Late Iron Age (~ AD1100-1840)

Historic (~ AD 1840 to 1950, but a Historic building is classified as over 60 years old)

Definitions Just like periodization, it is also critical to define key terms employed in this study. Most of these terms derive from Namibian National heritage legislation and its ancillary laws, as well as international regulations and norms of best-practice. The following aspects have a direct bearing on the investigation and the resulting report:

Cultural (heritage) resources are all non-physical and physical human-made occurrences, and natural features that are associated with human activity. These can be singular or in groups and include significant sites, structures, features, Eco facts and artefacts of importance associated with the history, architecture or archaeology of human development.

Cultural significance is determined by means of aesthetic, historic, scientific, social or spiritual values for past, present or future generations.

Value is related to concepts such as worth, merit, attraction or appeal, concepts that are associated with the (current) usefulness and condition of a place or an object. Although significance and value are not mutually exclusive, in some cases the place may have a high level of significance but a lower level of value. Often, the evaluation of any feature is based on a combination or balance between the two.

Isolated finds are occurrences of artefacts or other remains that are not in-situ or are located apart from archaeological sites. Although these are noted and recorded, but do not usually constitute the core of an impact assessment, unless if they have intrinsic cultural significance and value.

In-situ refers to material culture and surrounding deposits in their original location and context, for example an archaeological site that has not been disturbed by farming.

Archaeological site/materials are remains or traces of human activity that are in a state of disuse and are in, or on, land and which are older than 100 years, including artefacts, human and hominid remains, and artificial features and structures. According to the Namibia National Heritage Act (NNHA) (Act No. 27 of 2004), no archaeological artefact, assemblage or settlement (site) and no historical building or structure older than 60 years may be altered, moved or destroyed without the necessary authorization from the National Heritage Council or a provincial heritage resources authority.

Historic material are remains resulting from human activities, which are younger than 100 years, but no longer in use, including artefacts, human remains and artificial features and structures.

Chance finds means archaeological artefacts, features, structures or historical remains accidentally found during development.

A grave is a place of interment (variably referred to as burial) and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place. A grave may occur in isolation or in association with others where upon it is referred to as being situated in a cemetery (contemporary) or burial ground (historic).

A site is a distinct spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

Heritage Impact Assessment (HIA) refers to the process of identifying, predicting and assessing the potential positive and negative cultural, social, economic and biophysical impacts of any proposed project, which requires authorization of permission by law and which may significantly affect the cultural and natural heritage resources. Accordingly, an HIA must include recommendations for appropriate mitigation measures for minimizing or circumventing negative impacts, measures enhancing the positive aspects of the proposal and heritage management and monitoring measures.

Impact is the positive or negative effects on human well-being and / or on the environment.

Mitigation is the implementation of practical measures to reduce and circumvent adverse impacts or enhance beneficial impacts of an action.

Mining heritage sites refer to old, abandoned mining activities, underground or on the surface, which may date from the pre-historical, historical or the relatively recent past.

Study area or 'project area' refers to the area where the developer wants to focus its development activities (refer to plan).

Phase I studies refer to surveys using various sources of data and limited field walking in order to establish the presence of all possible types of heritage resources in any given area.

Table of Contents

Table 1; Project Description 2
DECLARATION 4
Acronyms 5
Key Concepts and Terms 5
Executive Summary 10
1.0 Introduction 10
1.1 Project Description and Location 12
Project Location 13
2.0 Legislations 15
3.0 Approach to study 16
3.1 Terms of Reference 16
3.2 Methodology 16
4.0 Assumptions and Limitations 19
5.0 Description of the study area in relation to its heritage and geological setting 19
5.1 Brief heritage setting of the Project Area 19
6.0 Fieldwork Findings and Observations 20
Detailed findings 22
7.0 Recommendations and Conclusions 26
7.1 Management Recommendations 26
7.2 Conclusions 28
References 29
Appendix 1) Chance Finds Procedure Management Guideline 30
Appendix 2) Archaeological and Heritage Monitoring Measures 32
Appendix 3) Archaeological Management Plan (AMP) 33

List of Figures

Figure 1; Locality Map for EPL 7576. (Source: SS Consultancy cc 2022). 12
Figure 2; Google image showing the locality for EP 7576 (Source: Google earth 2023). 14
Figure 3; Corner coordinates of EPL 7576 boundaries (Source: SS Consultancy cc 2022)....15
Figure 4; the general distribution of archaeological sites in Namibia from 1.8 million to the last 2 000 years (Source: Quaternary Research Services Namibia 2022). 20
Figure 5; abandoned water sources (a well and a storage dam) (Source: Authors 2022). 22
Figure 6; burial site – a marked grave and an unmarked (Source: Authors 2022).....23
Figure 7; Building remnants (Source: Authors 2022). 24
Figure 8; Open pit from previous mining activities (Source: Author 2022).....25

List of Tables

Table 1; Project Description 2
Table 2; Rating scales for the assessment of archaeological significance and vulnerability as developed by the QRN.....17
Table 3; Assessment criteria for the evaluation of cumulative impacts on archaeological sites developed by the QRN. 18
Table 4; Reversibility Ratings Criteria....19
Table 5; findings at the proposed exploration site for EPL 7576 21
Table 6; Archaeological and Heritage Monitoring Measures....32
Table 7; Archaeological Management Plan (AMP) 33

Executive Summary

An archaeological impact assessment was carried out for Uis – Chi Investment Namibia CC through field – based survey and desktop study focusing on the proposed exploration activities on Exclusive Prospecting License (EPL) 7576 which is located about 11 km in the North-western direction from Usakos town, within the Erongo region. The assessment therefore reviewed the archaeological records, historical documents from the previous studies surrounding the area, interview with local farmers and stakeholders, GIS spatial data, field survey as a basis of inference regarding the archaeological and heritage significance of the project site, and their likely sensitivity to disturbance in the course of exploration activities. These sources were used to conclude that damage or disturb sites or materials protected under the National Heritage Act (27 of 2004) is unlikely to occur. However, due to the possibility that buried archaeological remains could come to light in the course of exploration activities the proponent is advised to adopt the Chance Finds Procedure attached as Appendix 1 to this report.

1.0 Introduction

Omapipi Tageya Archaeological and Heritage Consultants (OTAH C) was appointed on behalf of the proponent to conduct a Heritage Impact Assessment (AIA) at the Exclusive Prospecting License (EPL) 7576. The EPL is situated in 11 km northwest of Usakos. The EPL covers a total surface area of about 353.552 hectares respectively.

Uis – Chi Investment Namibia CC., hereinafter referred to as the proponent intends to carry out the following activity:

To undertake exploration activities on Exclusive Prospecting License (EPL) 7576 to explore for various minerals.

Due to the destructive tendency of such exploration activities, which may include earth moving/ land alteration operations, it is a pre-requisite to conduct an Archaeological and/ or Heritage Impact Assessment (AIA) as obligated by the National Heritage Act, Act No. 27 of 2004 and, in part, by the Environmental Management Act, Act No. 7 of 2007. The main thrust of the provisions of the aforementioned legislations is to protect and salvage cultural/ archaeological and environmental resources from potential destruction

resulting from exploration or mining activities. It was against this background that an Archaeological Impact Assessment (AIA) was carried out on EPL 7576 to fulfill the following objectives:

a) To identify and document cultural/ archaeological materials and sites occurring in the area within and around the EPL.

b) To assess the nature and scale of archaeological impact of the exploration activities to heritage resources,

c) To suggest some conservation strategies for the cultural heritage resources that might occur in the area proposed for explorations which can be potentially destroyed in the course of such activities.

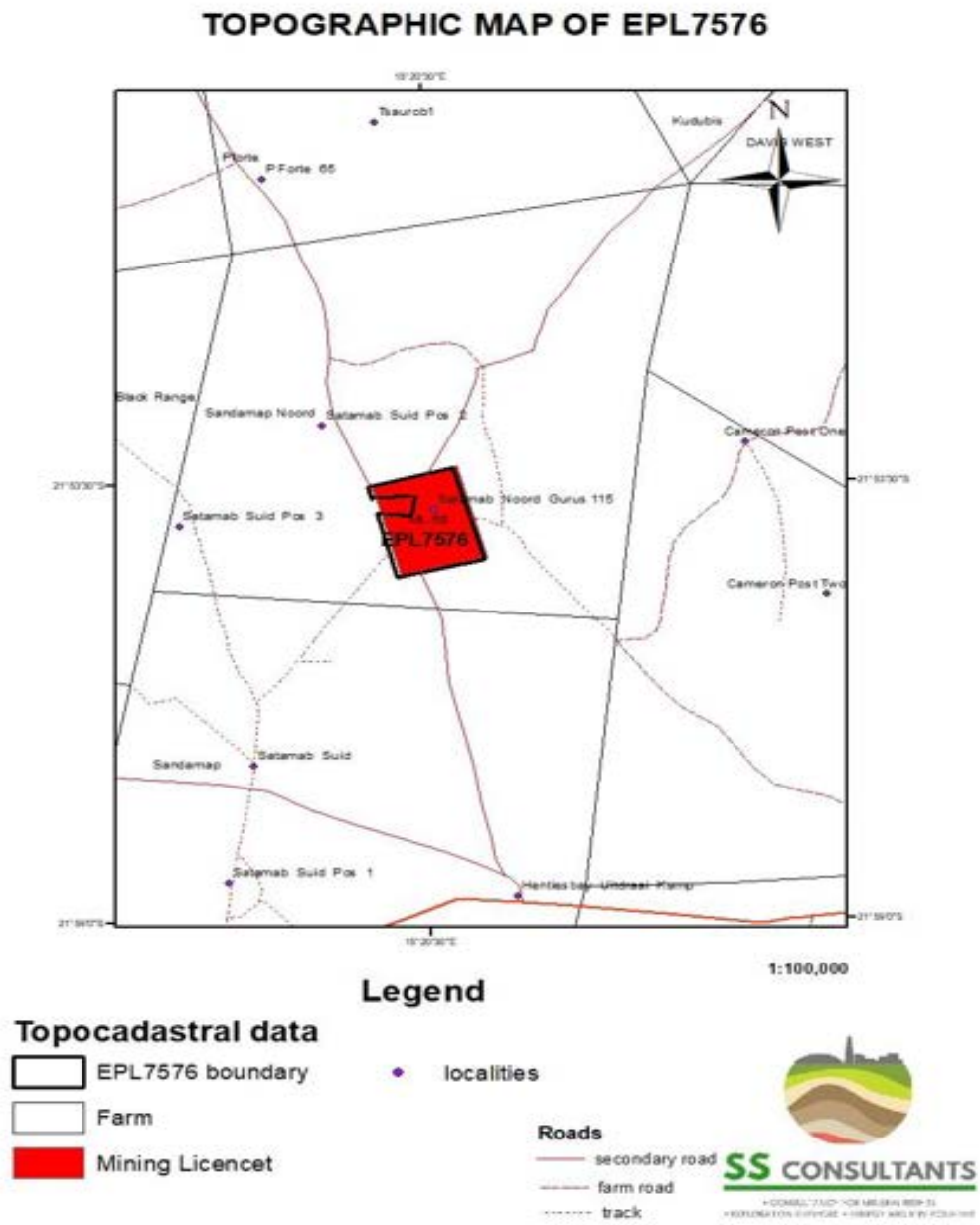


Figure 1; Locality Map for EPL 7576. (Source: SS Consultancy cc 2022).

1.1 Project Description and Location

The Exclusive Prospecting License (7576) was issued to Cadan Minerals and Resources Close Corporation by the Ministry of Mines and Energy MME to explore for various mineral groups as described in the previous sections. The license was granted on 25/10/2019 and will expire on 24/10/2022. The license tenure

may be extended for further two years by renewal of the rights if the Minister of MME is satisfied with the previous demonstrable progress shown as per Section 72 of the mineral rights act. The project area is made up of one EPL license which may be converted to Mining License (s) if an economically viable deposit is discovered and the licensing requirements of the latter are met.

The proposed activities of exploration will involve both non-invasive and invasive exploration methods. Non-invasive exploration methods usually include remote sensing, geological field mapping, ground geophysical survey and surface soil sampling. Whereas invasive exploration methods include techniques such as reverse circulation or diamond drilling and pitting/trenching. Non-invasive exploration activities will be undertaken first in order to define the need for more invasive activities. Should the results from the non-invasive activities be positive the detailed site-specific drilling, trenching, and sampling will be undertaken. The license falls within a well serviced area with infrastructure, such as water line, national roads, railways, telephones, petrol stations (Usakos, Arandis, Swakopmund, and Walvis Bay) and 3-phase electricity from NamPower. Therefore, the applicant will use the existing water and electrical infrastructure in the area.

Project Location

The proposed explorations will take place on EPL 7576, which is situated 11 km in the North-western direction from Usakos town, within the Erongo region. Access to the area is via the B2 tarred road from Usakos to Arandis than take the D1930 dirt road that passes through the license area see **Figure 2 below**. The EPL covers a total surface area of about 353.552 hectares. The main land use of the area within and outside the EPL is predominated by state land and other forms of human settlements.

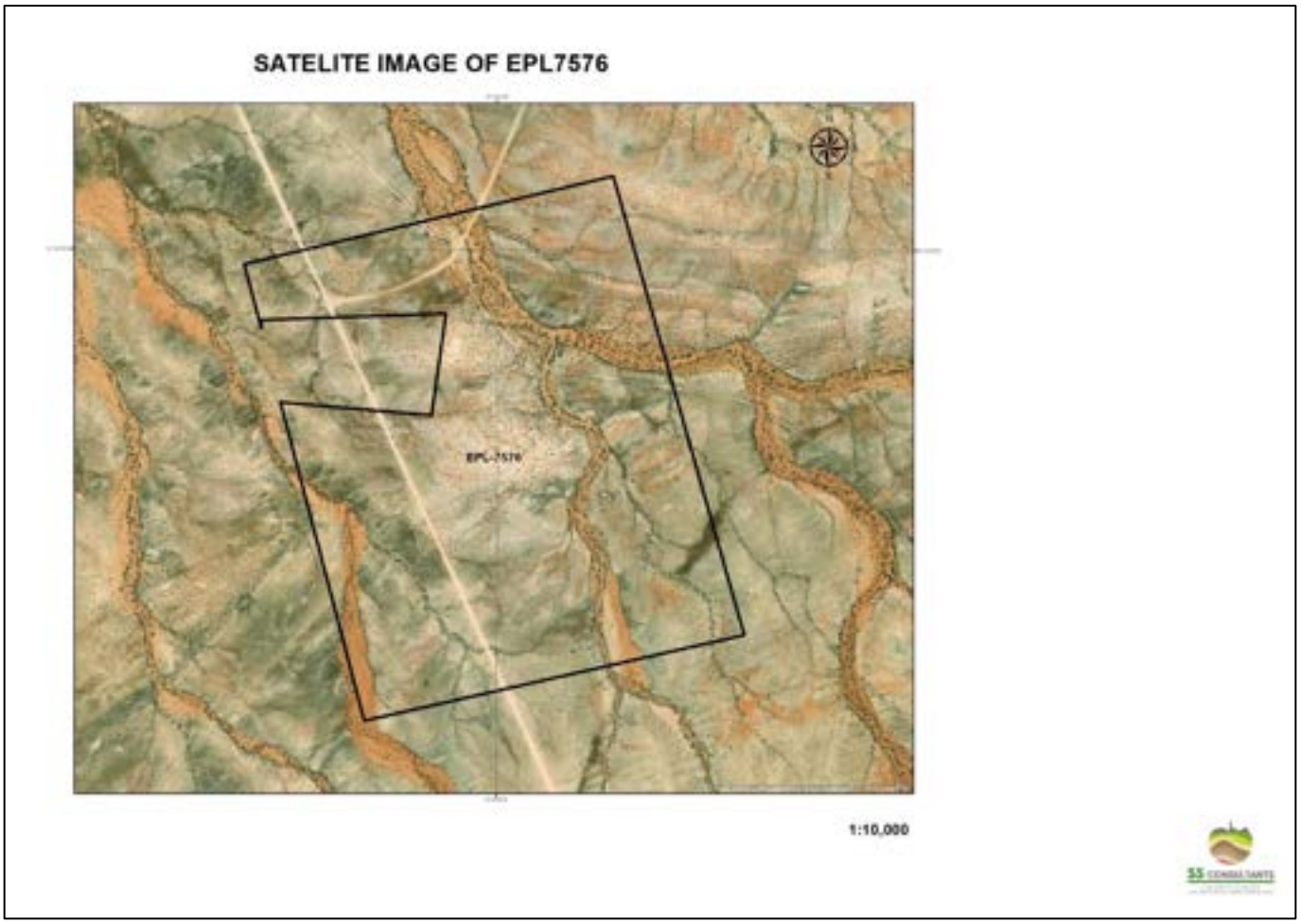
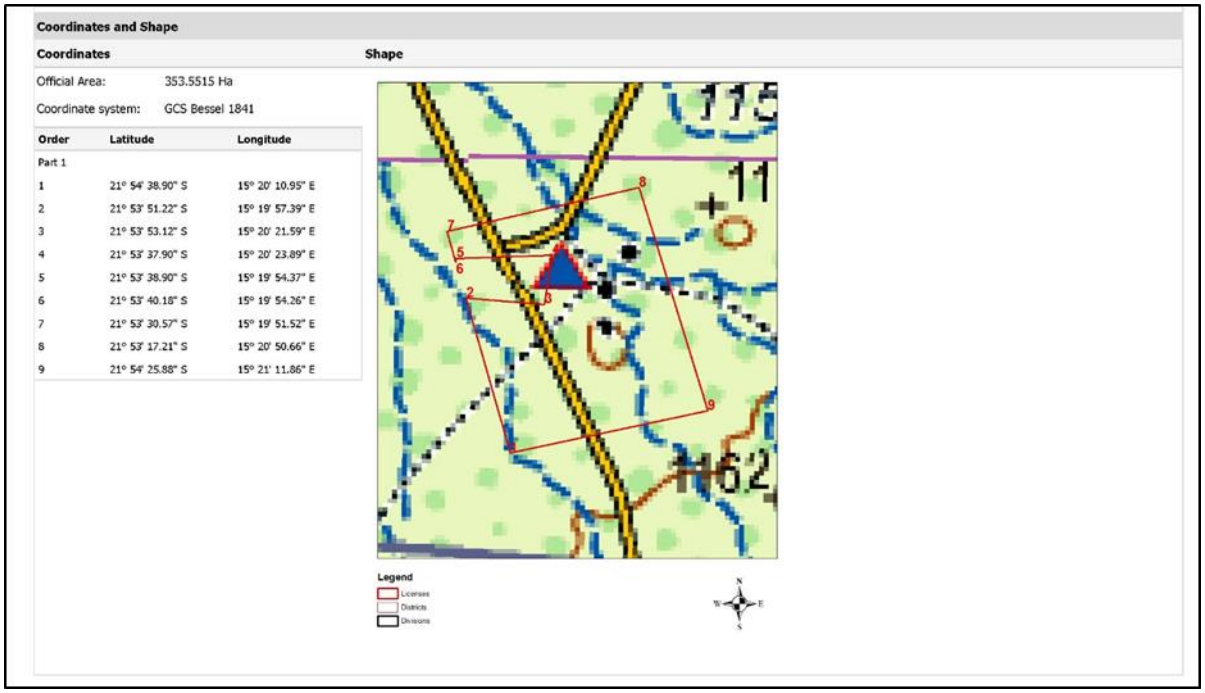


Figure 2; Google image showing the locality for EP 7576 (Source: Google earth 2023).



Coordinates and Shape

Coordinates | **Shape**

Official Area: 353.5515 Ha

Coordinate system: GCS Bessel 1841

Order	Latitude	Longitude
Part 1		
1	21° 54' 38.90" S	15° 20' 10.95" E
2	21° 53' 51.22" S	15° 19' 57.39" E
3	21° 53' 53.12" S	15° 20' 21.59" E
4	21° 53' 37.90" S	15° 20' 23.89" E
5	21° 53' 38.90" S	15° 19' 54.37" E
6	21° 53' 40.18" S	15° 19' 54.26" E
7	21° 53' 30.57" S	15° 19' 51.52" E
8	21° 53' 17.21" S	15° 20' 50.66" E
9	21° 54' 25.88" S	15° 21' 11.86" E

Figure 3; Corner coordinates of EPL 7576 boundaries (Source: SS Consultancy cc 2022).

2.0 Legislations

In most cases where the aspect of mining is involved, cultural and archaeological evidence located within areas earmarked for development or mining usually face the danger of either complete erasure or total destruction. The legal instrument for the protection of heritage sites and objects in Namibia is the National Heritage Act (No. 27 of 2004).

In order to ensure that this unique heritage of our past is protected and well documented, the National Heritage Act 27 of 2004 and EIA Terms of Reference in relation to the assessment of impacts of the proposed development on the cultural and heritage resources associated with the receiving environment shall be used to guide the exploration exercise. The statutory mandate of heritage impact assessment studies is to encourage and facilitate the protection and conservation of archaeological and cultural heritage sites, in accordance with the provisions of the National Heritage Act, Act 27 of 2004 and Environmental Management Act (EMA) No. 7 of 2007 and its 2012 EIA Regulations. The National Heritage Act (Section 1 of 2004) defines heritage resources as those of geological and rare objects; paleontological; archaeological; ethnographic objects; historical objects/sites; maritime heritage; built monuments; mining sites as well as objects of scientific interests.

3.0 Approach to study

3.1 Terms of Reference

The main task of the archaeological survey and assessment was to identify and record all sensitive archaeological sites within the limits of EPL 7576 that could be negatively affected by the above – mentioned project. The assessment also intended to establish heritage significance of possible resources and assess their vulnerability, estimates the extent of the possible impacts and establish mitigation measures. This study is intended to satisfy the requirements of the Environmental Management Act (7 of 2007), and those of the National Heritage Act (27 of 2004).

3.2 Methodology

This Heritage & Archaeological Impact Assessment followed desktop-based assessments and field surveys. These methodologies are standards for environmental and heritage assessment in Namibia, which are in line with international best practices. Desktop information was fashioned from current and existing heritage archives. These were taken from existing heritage records comprising those from National Heritage Council, archaeological GIS spatial data and record that has been substantially exposed during the last decades, by a series of detailed archaeological assessments carried out in the during the mineral investigation and mining operations, and the development of infrastructure required by these operations. These sources were then supplemented by site visit field work within EPL 7576.

Sensitivity and susceptibility rating scales, aimed at establishing the nature of vulnerability and sensitivity of heritage resources that are likely to be impacted by the exploration activities, were adopted as per assessment objectives. Their vulnerability to the disturbance in the course of exploration that includes drilling was evaluated according to parallel 0-5 scales, abridged in Table 2.

Table 2; Rating scales for the assessment of archaeological significance and vulnerability as developed by the QRN.

Significance Rating	
0	No heritage significance
1	Disturbed or secondary context, without diagnostic materials
2	Isolated minor finds in undisturbed primary context, with diagnostic materials
3	Archaeological and paleontological site (s) forming part of an identifiable local distribution or group
4	Multi-component site (s), or central site (s) with high research potential
5	Major archaeological or paleontological site (s) containing unique evidence of high regional significances
Vulnerability Rating	
0	Not vulnerable
1	No threat posed by current or proposed development activities
2	Low or indirect threat from possible consequences of development (e.g., soil erosion)
3	Probable threat from inadvertent disturbance due to proximity of development
4	High likelihood of partial disturbance or destruction due to close proximity of development
5	Direct and certain threat of major disturbance or total destruction

Concerning each specific source of impact risk to heritage resources, the assessment methodology estimated the extent of the impact, the magnitude of impact, and the duration of these impacts. The scales of estimation are set out and explained in Table 3.

Table 3; Assessment criteria for the evaluation of cumulative impacts on archaeological sites developed by the QRN.

CRITERIA	CATEGORY	DESCRIPTION
Extent or spatial influence of impact	**National** **Regional** **Local**	Within Namibia Within the Region On site or within 200 m of the impact site impact
Magnitude of impact (at the indicated spatial scale)	**High** **Medium** **Low** **Very Low** **Zero**	Social and/or natural functions and/ or processes are severely altered Social and/or natural functions and/ or processes are notably altered Social and/or natural functions and/ or processes are slightly altered Social and/or natural functions and/ or processes are negligibly altered Social and/or natural functions and/ or processes remain unaltered
Duration of impact	**Short Term** **Medium Term** **Long Term**	Up to 3 years 4 to 10 years after construction More than 10 years after construction

Table 4; Reversibility Ratings Criteria

Reversibility Ratings	**Criteria**
Irreversible	The impact will lead to an impact that is permanent.
Reversible	The impact is reversible, within a period of 10years

4.0 **Assumptions and Limitations**

This heritage impact assessment described here relies on desktop studies and supported by field assessment undertaken. It is possible to predict the likely occurrence of further archaeological sites with some accuracy and to present a general statement of the local archaeological site distribution. Nevertheless, it is critical as a precautionary measure and best practice, we are recommending the proponent to strictly follow the chance find procedure as the project progresses should any archaeological objects be found during drilling and trenching. The Chance finds procedure is outlined in the National Heritage Council booklet, (2017) and the proponent will be supplied with a copy. Failure to follow and implement such procedure will result in appropriate action being taken against the proponent as per the Heritage Act of 2004.

5.0 Description of the study area in relation to its heritage and geological setting

5.1 Brief heritage setting of the Project Area

The western Erongo Region of Namibia has a well-preserved archaeological record with evidence of human occupation spanning the last 800 000 years. The extent and extraordinary richness of this material record have been substantially revealed during the last decade, by a series of detailed archaeological assessments carried out in the course of exploration and mining operations, and the development of infrastructure required by these operations. The region has significant rich heritage resources manifested in the best-known rock art areas such as Brandberg Massif in Damaraland (2697m – mainly painting sites). Another important painting area is the Erongo Mountains on Oman Dumba farm.

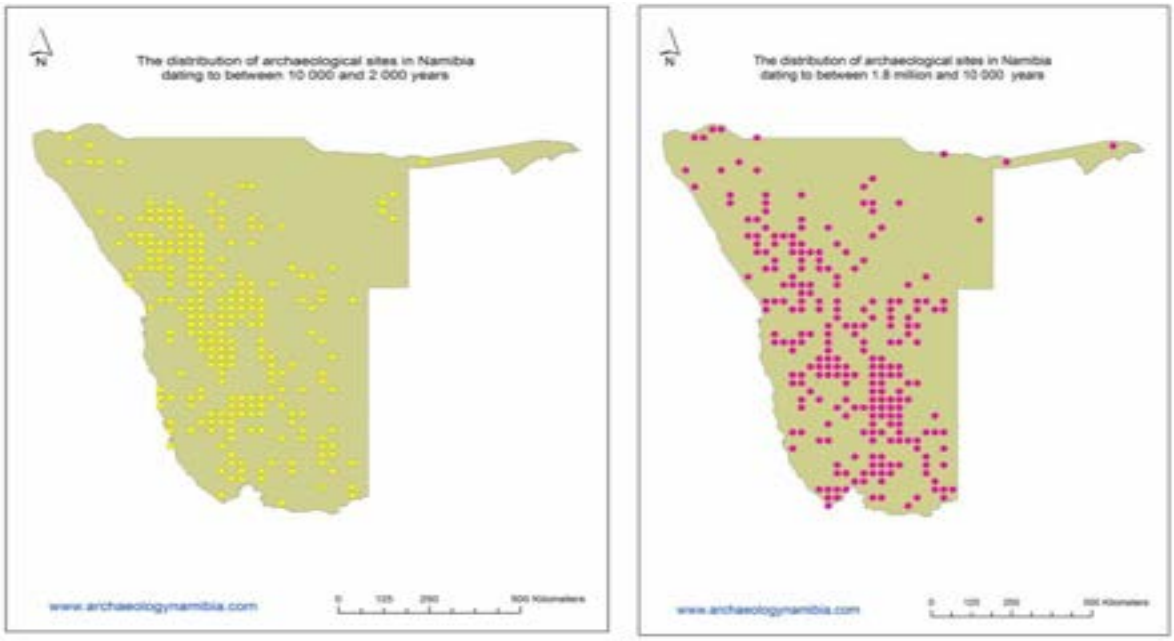


Figure 4; the general distribution of archaeological sites in Namibia from 1.8 million to the last 2 000 years (Source: Quaternary Research Services Namibia 2022).

6.0 Fieldwork Findings and Observations

A reconnaissance field survey was carried out to locate and record their most important archaeological features within the footprints of EPL 7576 on the 16th and 17st of October 2022 in the Erongo Region. The field survey was aimed at recording and locating the most important archaeological features (if found) that might be negatively impacted by the proposed exploration activities within the boundaries of EPL 7576 and beyond. This survey was also meant to come up with mitigation measures that will safeguard and protect such heritage resources.

The field survey involved a combined approach which included foot survey within and around EPL 7576 and an interview with the farmers and small-scale miners that are currently mining within the area of interest but on different mining licenses. Two (2) possible archaeological/heritage sites were recorded during the field survey. The site locations are set out below together with brief remarks on their significance. The vulnerability of the sites in terms of their sensitivity is outlined below as well. Mitigation measures are required to ensure their conservation. The field survey team has learned that the area was exposed to previous mining activities and the land is heavily disturbed. There currently small-scale miners who are scrapping in the old abandoned open quarries.

Table 5; findings at the proposed exploration site for EPL 7576

Heritage resources	**Status/findings**	**Level of impact by proposed explorations**
Buildings, structures, and places of cultural significance	Abandoned well/dam and some building remnants/structures identified within area of interest Fig 5 & 8).	Mild
Areas to which oral tradions are attached or which are associated with intangible heritage	None	None
Historical buildings	None	None
Landscapes and natural features of cultural significance	None	None
Archaeological and paleontological sites	None	None
Graves and burial grounds	+- 7 graves within the area of interest (Fig 6)	Severe (Graves not fenced off)
Movable objects	None	None

Detailed findings

Site 1; water well and dam structures

Site coordinates: -21.534647 15.203631

Description: Abandoned water well built with concrete and stone and a water storage dam with no water **(see fig 5)**

Significance rating: 4 (Historical value)
Vulnerability rating: 3
Records: Photographs and fieldnotes
Reversibility rating: Irreversible
Condition assessment: stable condition

Figure 5; abandoned water sources (a well and a storage dam) (Source: Authors 2022).

Site 2; Undated burial site

Site coordinates: -21.534401 15.203439

Description: Small cemetery with + - 7 graves, one grave ismarked and the rest are un marked (undated) **see fig 6**. The site is in a riverbed and most of the graves are faced with the risk of being washed away by the water when the river flows. The site is not fenced off. According to Mr. Nicolas the farm owner, the graves belong to the former mine workers who worked in the old underground mine which existed in 1950 and closed down before independence.

Significance rating: 3 (Historical value)
Vulnerability rating: 4
Records: Photographs and fieldnotes
Reversibility rating: Irreversible
Condition assessment: poor condition

Figure 6; burial site – a marked grave and an unmarked (Source: Authors 2022).

Site 3; Building structures

Site coordinates: 21.535323. 15.203536

Description: Old mine building Remnants (office block and accommodation barracks for the mine workers **see fig 7.**

Significance rating: 3 (Historical value)
Vulnerability rating: 4
Records: Photographs and fieldnotes
Reversibility rating: Irreversible
Condition assessment: poor condition

Figure 7; Building remnants (Source: Authors 2022).

Field photographs

Figure 8; Open pit from previous mining activities (Source: Author 2022).

Field photographs

Figure 10; image showing a part of the EPL

Figure 11; A dam and a well within the EPL

7.0 Recommendations and Conclusions

7.1 Management Recommendations

Within EPL 7576 lies abandoned water sources (**Figure 5)** Given the often-volatile colonial settlements and infrastructure development within the Erongo region at the dawn of the 20th century in Namibia, it is plausible to assume that this structure could have been a remnant of either German or South African colonial governments' projects. Moreover, the war of national resistance between Herero/Nama and German settlers and between South Africa and German South-West Africa led to the establishment of bunkers and bomb shelters. However, the concrete appears to be a recent structure probably used by the first miners' activities that took place. Another hypothesis is that the concrete structure **(Figure 7)** is a remnant of a building that could be an office of the mine that existed before. Whatever the origin of this structure, one thing is certain, it should be preserved by all means from damage by mining prospection activities. Furthermore, Site two indicates couple of graves that could belong to the mine workers. Regardless of the fact they do not meet the threshold to be classified as archaeological sites or archaeological objects according to the 2004 National Heritage Act no 2. At this stage it is important that the client is

made aware of the fact that archaeological/heritage sites in the project area are protected under the National Heritage Act (27 of 2004). When prospecting is underway, the proponent should make sure that all personnel and contractors are aware of the protected nature of archaeological sites as well as the legal obligation to report any new finds to the National Heritage Council as soon as possible. The proponent should take steps to avoid either direct damage to the sites or to their immediate landscape setting.

Based on the desktop study and field work survey undertaken in this study, we recommended that:

a) At least a 50-meter buffer zone be maintained free of any exploration activities from the two abandoned water sources in site 1.
b) The proponent fence off site two (burial site) in consultation with the community members and at least a 100m buffer zone should be maintained from exploration activities and vehicle tracks.
c) The project proponents or contractors should adopt the Chance Finds Procedure attached here as Appendix 1, so that buried archaeological remains are discovered may be handled following the provisions of Part V Section 46 of the National Heritage Act (27 of 2004).
d) The vehicle tracks not to approach within 50m of any the above-mentioned sites and should be deviated accordingly.
e) Annual site inspections by the NHC be carried out.
f) The foot print impact of the proposed exploration activities should be kept to minimal, to limit the possibility of encountering chance finds within servitude.
g) The Environmental Management Plan is to ensure that all the existing archaeological reference guidelines (Chance Find Procedure Guideline by NHC (2017) is shared with the proponent for guidance. So that, any buried archaeological remains that might be discovered during the prospecting phase are handled following the provisions of Part V Section 46 of the National Heritage Act (27 0f 2004).

7.2 Conclusions

The literature review and field survey confirmed that the proposed project area is situated within a contemporary cultural landscape dotted with settlements with long local history. Field survey established that the affected project area is degraded by vegetation clearance and land alteration from previous mining activities. Although the project degraded, there is a possibility of hidden or buried archaeological materials that might be encountered during the exploration activities, hence a 'Chance Find Procedure' is highly recommended. This report concludes that the proposed exploration activities may be approved by NHC as planned subject to recommendations herein made and heritage monitoring plan being incorporated in the EMP.

References

Environmental Management Act No. 7 of 2007. Government Gazzete.

Kinahan, J. 2011. From the beginning: the archaeological evidence. In Wallace, M. and Kinahan, J. History of Namibia: from the beginning to 1990. London: Hurst & Co., pp 15- 44.

Kinahan, J. 2020. Namib: The Archaeology of an African Desert. Windhoek: University of Namibia Press (in press).

Kinahan, John. 2012. Archaeological Guidelines for Exploration & Mining in the Namib Desert, the Namibia Archaeological Trust.

Mr. Nicolas (Verbal Communication 2022).

National Heritage Act 27 of 2004.2004. Government Gazette

Wendt, W.E. 1972. Preliminary report on an archaeological research programme in South West Africa. Cimbebasia (B) 2: 1-61.

Appendix 1) Chance Finds Procedure Management Guideline

The proponent is advised to implement the following managementactions on the way forward:

1. Chance Finds Procedure (CFP) management guideline:

Areas of proposed development or mining activities 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 in the course of 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 people.

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.

A. Responsibilities:

Operator to exercise due caution if archaeological remains are found

Foreman to secure site and advise management timeously

Superintendent to determine safe working boundary and request inspection

Archaeologist to inspect, identify, advice management, and recovers remain

B. Procedure:

Action by the person (operator) identifying archaeological or heritage material

- If operating machinery or equipment: **stop work**
- Identify the site with flag tape
- Determine GPS position if possible

- Report findings to foreman

C. Action by foreman:

- Report findings, site location and actions are taken to the superintendent
- Cease any works in the immediate vicinity

D. Action by superintendent

- Visit the site and determine whether work can proceed without damage to findings;
- Determine and mark the exclusion boundary
- Site location and details to be added to the Archaeological Heritage databasesystem

E. Action by archaeologist

- Inspect site and confirm the addition to AH database system;
- Advise National Heritage Council and request a permit to remove findings;
- Recovery, packaging and labeling of findings for transfer to National Museum

F. In the event of discovering human remains

- Actions as above;
- Field inspection by archaeologist to confirm that remains are human;
- Advise and liaise with NHC Guidelines; and

Recovery of remains and removal to National Museum or National ForensicLaboratory, or as directed.

Appendix 2) Archaeological and Heritage Monitoring Measures

Table 6; Archaeological and Heritage Monitoring Measures

SITE REF	HERITAGE ASPECT	POTENTIAL IMPACT	MITIGATION MEASURES	RESPONSIBLE PARTY	PENALTY	METHOD STATEMENT REQUIRED
Chance Finds (Archaeological and Burial Sites)	General area where the proposed project is situated is a historic landscape, which may yield archaeological, cultural property, remains. There are possibilities of encountering unknown archaeological sites during subsurface construction work which may disturb previously unidentified chance finds.	Possible damage to previously unidentified archaeological and burial sites during exploration phase. • Unanticipated impacts on Archaeological sites where project actions inadvertently uncovered significant archaeological sites. • Loss of historic cultural landscape; • Destruction of burial sites and associated graves • Loss of aesthetic value due to exploration work • Loss of sense of place Loss of intangible heritage value due to change in land use	In situations where unpredicted impacts occur exploration activities must be stopped and the heritage authority should be notified immediately. Where remedial action is warranted, minimize disruption in exploration scheduling while recovering archaeological data. Where necessary, implement emergency measures to mitigate. • Where burial sites are accidentally disturbed during exploration, the affected area should be demarcated as no-go zone by use of fencing during exploration, and access thereto by the exploration team must be denied. • Accidentally discovered burials in development context should be salvaged and rescued to safe sites as may be directed by relevantheritage authority. The heritage officer responsible should secure relevant heritage and health authorities' permits for possible relocation of affected graves accidentally encountered during exploration work.	• Contractor / • Project Manager • Archaeologist • Project Environmental Control Officer (ECO) or Site Manager	Fine and or imprisonment under the NHA	Monitoring measures should be issued as instruction within the project EMP. PM/EO/Archaeologists Monitor exploration activities on sites where such exploration projects commence within the farm.

Appendix 3) Archaeological Management Plan (AMP)

Objectives of Archaeological Management Plan (AMP)

- Protection of archaeological sites and land considered to be of cultural value.
- Protection of known physical cultural property against vandalism, destruction and theft; and
- The preservation and appropriate management of new archaeological finds should these be discovered during exploration and mining operations.

Table 7; Archaeological Management Plan (AMP)

Archaeological Management Plan (AMP)								
Area and Site	**Mitigation Measures**	**Phase**	**Timeframe**	**Responsibility party for implementation**	**Monitoring party**	**Accountable party**	**Monitoring system (performance indicators)**	**Target**
	If potentially human remains, NHC and Namibian Police should be contacted	Throughout the project	The project life	Operational staff or any person employed by the proponent	Site Manager (SM)	Proponent	Checklist/Progress report	Place Ordinance 27 of 1966
NB! The procedure to be followed during the operation, decommissioning and rehabilitation phases are the same as they were during the exploration phase.								

ANNEXURE J: CONSENT LETTERS (NATIONAL HERITAGE COUNCIL AND CONSERVANCY)

National Heritage Council of Namibia
52 Robert Mugabe Avenue, Windhoek
Private Bag 12043, Ausspannplatz, Windhoek, Namibia
Tel: (061) 244 375 • Fax: (061) 246 872 •
E-mail: info@nhc-nam.org

CONSENT

(Section 55(9) of the National Heritage Act, 2004 (Act No. 27 of 2004)) Consent is hereby given to:

13th March 2023

Consent Number No: 46/2023/47

Name of applicant: Uis-Chi Investment Namibia cc.

(Title and full name of the applicant)

Address of applicant: P. O. Box 3250, Windhoek, Namibia

(Address of the applicant and of the applying institution (if applicable)

For: Exclusive Prospecting License (EPL) 7576 for the exploration of Base and Rare metals, Precious metals, Dimension stones, and Industrial minerals.

(Type of Activity applied for)

Of: Dam and well structures, burial site and ruins of building structures.

(Description of Heritage Resources)

From: The EPL is located about 11 km North-West of Usakos, in the Erongo region, Namibia. The EPL covers a surface area of 353.55 Hectares (ha).

(Description of the site, location as in the application)

In accordance with: Heritage Impact Assessment conducted on Exploration Prospecting License (EPL) 7576 for the exploration of Base and Rare metals, Precious metals, Dimension stones, and Industrial minerals in the Erongo region, Namibia.

Permit application date: 03/02/2023

(*Specify relevant documentation and Permit application date*)

The following conditions (imposed in terms of Section 55(9) of the Act.) apply to this permit:

a) A 100m buffer zone should be created and maintained around the burial site.
b) The proponent should fence off the burial site in consultation with the community.
c) A 50m buffer zone should be created and maintained around the well and dam structures.
d) A 50m buffer zone should be created and maintained around the ruins of building structures.
e) The proponent should take caution approaches together with the compliance and of the Chance Find Procedure.
f) As per Section 55 (9) (a) the activity authorized by this consent be supervised by a person with appropriate professional qualifications or experience.
g) Monitoring and evaluation inspection will be carried out on the area during the course of the year.
h) The consent holder is to report back to the National Heritage Council every six (6) months on compliance with the conditions of this consent.
i) This Consent does not exempt the holder from any conditions that may be imposed by owners, hosts or any other relevant authorities in consultation with NHC who have a stake in the project area.
j) NHC shall not be liable for any losses, damages or injuries to persons or properties as a result of any activities related to this permit.

k) This Consent is subject to the provisions of the National Heritage Act (Act 27 of 2004). Should any of the conditions contained herein conflict with the Act; the provisions of the Act as per Section 55 (10) shall prevail.

l) This consent is renewable, upon submission of an application at least two months before the current permit lapses.

(List any conditions that the Council may see fit to impose in terms of section 55 (9) of the act.

This Consent will be valid from 13th March 2023 to 12th March 2024.

National Heritage Council of Namibia
Office of the Director
13 MAR 2023
Private Bag 12043
Ausspannplatz
Windhoek Namibia

Director: National Heritage Council of Namibia

TSISEB CONSERVANCY
HADA-HUIGU

Tsiseb Conservancy Office
P.O. Box 72
Uis
Namibia
Tel: +264 64 504162
Fax: +264 64 504182
Email: tsisebconservancy@gmail.com

Enquiries: Eric Xaweb Manager

17 June 2023

Uis-Chi investments Namibia CC

P.O. Box 3250

WINDHOEK

Email: Uis_Chi_investment@yahoo.com

RE: PROPOSED PROSPECTING AND EXPLORATION ON EPL No: 7469,7470,7498,7576 and 8100 WITHIN CONSERVANCY AREA

Tsiseb Conservancy herewith gives consent towards EPL 7469,7470,7489,7576 and 8100 which is located in Uis District in the Erongo Region within the conservancy boundaries to further their process with the relevant institution.

However, once your Environmental Clearance Certificate (ECC) is issued and before any proposed prospecting and exploration commence the Project Proponent and the Conservancy Management Committee should enter into MOU with reference on the meeting which was held on the 17 June 2023 as platform of engagement.

Kindly take into due considerations to comply at all times with the provisions of Environmental Management Act of 2007 during the prospecting and exploration phase

JESAJAS B. GOSEB
pp Uises
CHAIRPERSON-CONSERVANCY MANAGEMENT COMMITTEE

TSISEB CONSERVANCY
PO Box 72
Uis, Namibia
2023 -06- 17
Tel: +264 64-504162
Fax: +264 64-504182
tsisebconservancy@gmail.com

Tsiseb CMC Members: J Goseb (Chairperson), V /Uises (Vice Chairperson)
R Garises, M Matsuis, R.!Guims, G /Huseb, S //Areseb, N Seibeb

ANNEXURE K: SITE IMAGES

Caption 1: Old structure from the historical Sandmap mine

Caption 2: Historical workings of the old Sandmap mine.

Caption 3: Pegmatite outcrop intruded by a dolerite, seen during the site visit.

Caption 4: Peg of a preexisitng mining claim seen on site.