

**ARCHAEOLOGICAL AND CULTURAL HERITAGE IMPACT  
ASSESSMENT REPORT FOR EXCLUSIVE PROSPECTING LICENSE (EPL) NO. 8228,  
KARASBURG DISTRICT, KARAS  
REGION, NAMIBIA**

Compiled by:

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Prepared for:

**Ms Lusia Nghitukwa**

**Table: Project Details**

Item	Description
Proposed development and location	Ms Lusia Nghitukwa ( <b>The Proponent</b> ) is intending to carry out exploration activities on Exclusive Prospecting License (EPL) No. 8228. The EPL is located 69 km northern of Karasberg town in the Karas region. The EPL covers a surface area of 19794.6478 hectares (ha).
Title	<b>ASSESSMENT REPORT FOR EXPLORATION ACTIVITIES ON EXCLUSIVE PROSPECTING LICENSE (EPL) NO. 8228, KARAS REGION, NAMIBIA</b>
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 Municipalities	EPL Centred at 27° 44' 40'' S 19° 28' 25'' S Karasburg District
Predominant land use of surrounding area	Farming and Small mining
Heritage Consultant	<b>Omapipi Tageya Archaeological and Heritage Consultants cc (Reg No: cc/2021/2930</b>
Author(s) identification	<b>Kaarina Shagwanepandulo Efraim</b>

In terms of land ownership, the land - use of the EPL 8228 is for commercial land.

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**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 Author is not responsible for omissions and inconsistencies that may result from information not available at the time this report was prepared.

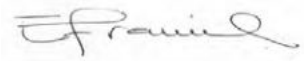
The Archaeological and Heritage Impact Assessment Study was carried out within the context of tangible and intangible cultural heritage resources as defined by the National Heritage Council Regulations and Guidelines as to the authorisation of proposed exploration project being proposed Ms Lusia Nghitukwa.

## DECLARATION

I hereby declare that I 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 applicable laws. I also declare that I 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:



## **Table of Contents**

<i>Executive Summary</i> .....	7
<i>Key Concepts and Terms</i> .....	8
<i>1.0 Introduction</i> .....	11
Project Description .....	12
Project Location .....	12
<i>2.0 Legislations</i> .....	14
<i>3.0 Approach to study</i> .....	15
3.1 Terms of Reference .....	15
3.2 Methodology .....	15
<i>4.0 Assumptions and Limitations</i> .....	18
<i>5.0 Brief heritage setting of the Project Area</i> .....	18
<i>6.0 Fieldwork Findings and Observations</i> .....	19
6.1 Detailed findings .....	21
6.2 Field photographs .....	25
<i>7.0 Recommendations and Conclusions</i> .....	27
7.1 Management Recommendations.....	27
7.2 Conclusions.....	28
<i>References</i> .....	29
<i>Appendix 1)</i> .....	30
<i>Appendix 2) Archaeological and Heritage Monitoring Measures</i> .....	32
<i>Appendix 3) Archaeological Management Plan (AMP)</i> .....	33

## *List of Tables*

<b>Table 1; Project Details .....</b>	<b>2</b>
<b>Table 2; Acronyms and Definitions table .....</b>	<b>7</b>
<b>Table 3: Rating scales for the assessment of archaeological significance and vulnerability as developed by the QRN.....</b>	<b>16</b>
<b>Table 4; Assessment criteria for the evaluation of cumulative impacts on archaeological sites developed by the QRN.....</b>	<b>17</b>
<b>Table 5; Reversibility Ratings Criteria.....</b>	<b>18</b>
<b>Table 6; findings at the proposed exploration site for EPL 8228.....</b>	<b>20</b>
<b>Table 7; Archaeological and Heritage Monitoring Measures.....</b>	<b>32</b>
<b>Table 8; Archaeological Management Plan (AMP .....</b>	<b>33</b>

## *List of Figures*

<b>Figure 1: Locality map for EPL 8228 which is located about 69 km northeast of the Karasberg town (Map credits: SS Consultancy, 2023).....</b>	<b>13</b>
<b>Figure 2: Regional location of EPL 8228 in the Karasberg region (Map credits: SS Consultancy, 2023).....</b>	<b>14</b>
<b>Figure 3; A burial site on farm Helder with Several graves (photo credits: Author 2023). 21</b>	
<b>Figure 4; A dry stone Klaar (photo credits: Author 2023). .....</b>	<b>22</b>
<b>Figure 5; Several graves -burial site (photo credits: Author, 2023).....</b>	<b>23</b>
<b>Figure 6; War memorial on farm Hudap (photo credits: Author, 2023) .....</b>	<b>24</b>
<b>Figure 7; The receiving environment of EPL 8228 (photo credits: Author, 2023).....</b>	<b>25</b>
<b>Figure 8; ; Public consultation at farm Helder during the site visit (photo credits: Author, 2023). .....</b>	<b>26</b>
<b>Figure 9; existing vehicle tracks within EPL 8228 (photo credits: Author, 2023).....</b>	<b>27</b>

## Executive Summary

An archaeological impact assessment was carried out for **Ms Lusia Nghitukwa** focusing on the proposed prospecting activities on EPL 8228 which is located about 69 km northeast of Karasberg town in the Karas Region. The assessment therefore reviewed the archaeological records, historical documents from the previous studies surrounding the area, interview with local farmers, GIS spatial data and a field survey as a basis of inference 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.

**Table 1: Acronyms and Definitions table**

<b>Abbreviation</b>	<b>Description</b>
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 periods 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.

## 1.0 Introduction

The Government of Namibia recognizes that the exploration and development of its mineral wealth could best be undertaken by the private sector. The government, therefore, focuses on creating an enabling environment through appropriate competitive policy and regulatory frameworks for the promotion of private sector investment coupled with the provision of national geo-scientific databases essential for attracting competitive exploration and mining (Draft Minerals Policy of Namibia, MME).

It is with this background that **Ms Lusia Nghitukwa** (*herein referred to as the proponent*) has decided to conduct exploration activities for industrial minerals and precious metals on Exclusive Prospecting License (EPL) 8228. The Proponent wants to carry out these exploration activities with the hope that if they yield positive results then a feasibility study and mapping of geological minerals will be conducted at a later stage. At this stage, however, the exploration activity is aimed at establishing the availability and type of minerals likely to be found within EPL 8228.

**the proponent** has then appointed Omapipi Tageya Archaeological & Heritage Consultants (**OTAH**) to provide an archaeological/heritage assessment as envisaged under the provisions of the National Heritage Act (27 of 2004). This report presents the results of an archaeological/heritage field survey of the area, focusing on EPL 8228. The report suggests mitigation measures that would be in keeping with the applicable laws and policies governing the preservation of archaeological remains in Namibia. The exclusive prospecting license is located about 69 km northeast of Karasberg town in the Karas Region. The EPL covers a surface area of 19794.6478 hectares (ha).

Due to the destructive tendency of such exploration activities, which may include earth-moving/land alteration operations, it is a pre-requisite to conducting 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 legislation is to protect and salvage cultural/ archaeological and environmental resources from potential destruction resulting from mining activities.

It was against this backdrop that an Archaeological Impact Assessment (AIA) was carried out on EPL 8228 to fulfil 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 on 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.

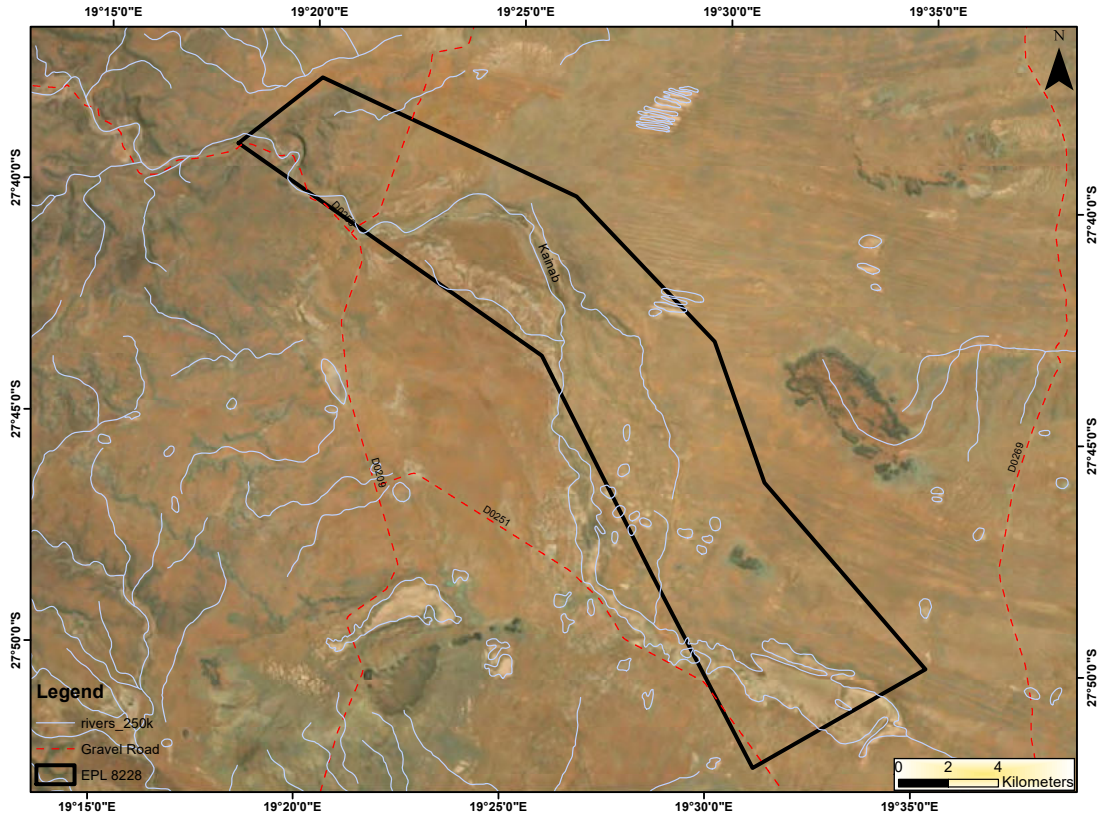
## **1.1 Project Description**

**The proponent** intends to develop a mine in Karasberg district, therefore she propose to conduct mineral exploration activities on EPL No. 8228 for the exploration of industrial minerals and precious metals group of commodities. The proposed activities of exploration on EPL 8228 will involve both non-invasive and invasive exploration methods. Non-invasive exploration methods usually include remote sensing, geological field mapping, ground geophysical survey, surface soil sampling and etc. whereas invasive exploration methods include more destructive methods of exploration 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.

## **1.2 Project Location**

The proposed explorations will take place on EPL 8228, which is situated 69 km from Karasberg, Karas region, Namibiaa, see figure 1 below. The EPL covers a surface area of 19794.6478 hectares (ha). The EPL overlies a number of commercial farms including: Fettkluft North, Fettkluft South, Snyriver South, Hudap North, Hudab South, Tigerberg, Nabas, Helder farms. However, this archaeological and heritage field survey in this report only focused on seven farms which includes: Fettkluft North, Fettkluft South, Snyriver South, Hudap North, Hudab South, Tigerberg, Nabas,

Helder farms. Thus, the results reported herein cannot be generalised for farm Tigerberg. Farm Tigerberg which form part of the EPL could not be surveyed because of accessibility challenges which the proponent is aware of.



**Figure 1: Locality map for EPL 8228 which is located about 69 km northeast of the Karasberg town (Map credits: SS Consultancy, 2023).**

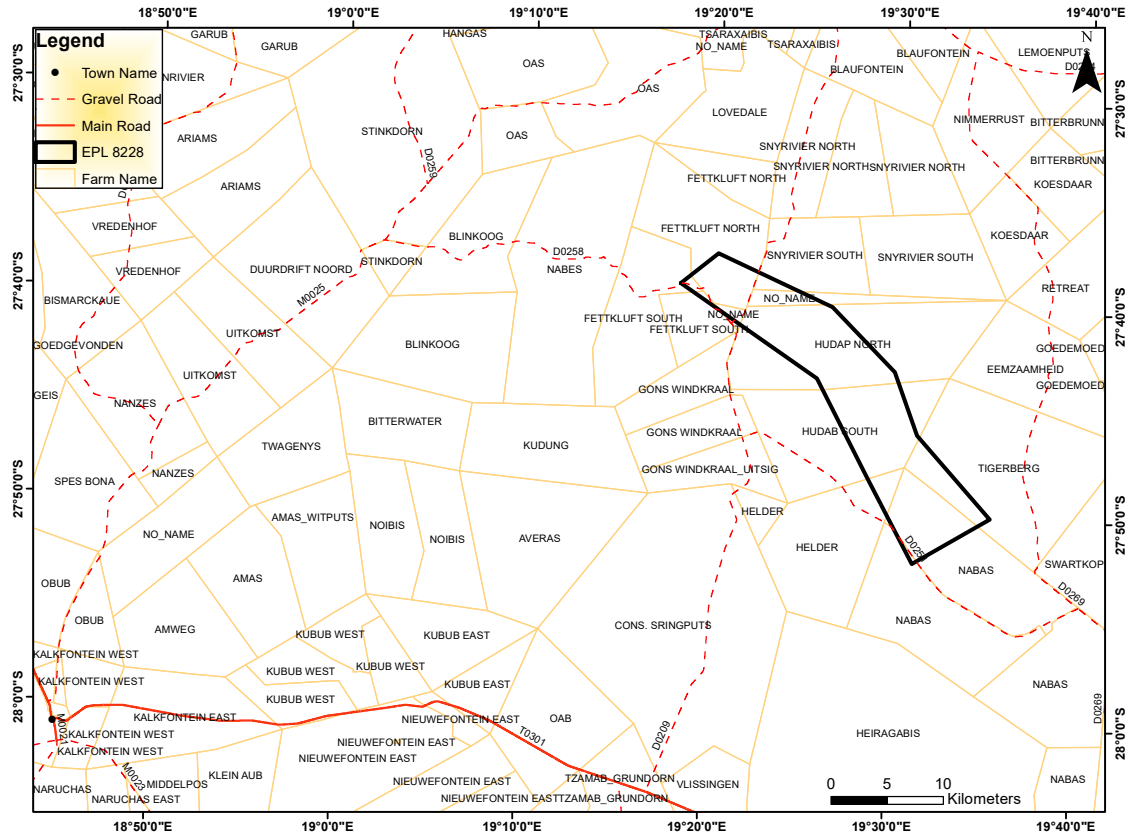


Figure 2: Regional location of EPL 8228 in the Karasberg region (Map credits: SS Consultancy, 2023).

## 2.0 Legislations

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

To ensure that this unique heritage of our past is protected and well documented, the National Heritage Act 27 of 2004 and Environmental Impact Assessment (EIA) Terms of Reference concerning 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, following 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 8228 that could be negatively affected by the proposed exploration activities on EPL 8228. 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, supplemented by oral interviews. 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, National Museum of Namibia, 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 8228.

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 3 below.

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

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



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

<b>CRITERIA</b>	<b>CATEGOR Y</b>	<b>DESCRIPTION</b>
<b>Extent or spatial influence of impact</b>	<b>National</b> <b>Regional</b> <b>Local</b>	Within Namibia Within the Region On site or within 200 m of the impact site impact
<b>Magnitude of impact (at the indicated spatial scale)</b>	<b>High</b> <b>Medium</b> <b>Low</b> <b>Very Low</b> <b>Zero</b>	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
<b>Duration of impact</b>	<b>Short Term</b> <b>Medium Term</b> <b>Long Term</b>	Up to 3 years 4 to 10 years after construction More than 10 years after construction

**Table 4: Reversibility Ratings Criteria**

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

#### **4.0 Assumptions and Limitations**

This heritage impact assessment described here relies on desktop studies and supported by field assessment undertaken and oral interviews. 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 Brief heritage setting of the Project Area**

Southern part of Namibia is semi aridity and this affected the permanent settlement during the pre – colonial period, the area in consideration was hardly occupied, thus it presents little evidence of human occupation during this era Kinahan (2017). However, things changed during the colonial period, especially with the establishment of the railway from the town of Keetmanshop to the diamond towns during the 19<sup>th</sup> century. Namibia’s southern region is dominated by wide open spaces, solitude and silence, including historical buildings, fossils, ghost towns and quiver tree forests. Germany’s colonisation of Namibia proceeded along two main axes from the seashore; starting at the ports of Lüderitz in the south and Swakopmund in the north and continuing through the desert into the highlands. Warmbad and Keetmanshoop were its counterparts in the south. As

its name implies, Warmbad possessed rich artesian hot springs – useful for pastoralists’ livestock after the 75km trek from the !Garib / Orange River – and the town contained numerous mission churches and some of the earliest German police patrols. From 1903, Nama groups began to take up arms against German rule, intensifying from 1904–1906 under the leadership of Hendrik Witbooi – whose family had crossed the !Garib / Orange River in the 19th century

The regional sequence is simplified as follows; Early to mid-Pleistocene (ca. 2my1to 0.128my; OIS2 6, 7, 19 &c): which is represented by surface scatters of stone tools and artefact debris, usually transported from original context by fluvial action occurring in sealed stratigraphic context. Historical (the last ca. 250 years): represented by remains of crude buildings, livestock enclosures, wagon routes and watering points. Some evidence of trade with indigenous communities, including metals, ceramics and glass beads Kinahan (2005).

## **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 8228 in the Karas 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 8228 and close proximity. 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 8228 and an interview with some community members that are currently living around the area of interest. Three possible archaeological/heritage sites were recorded during the field survey. Two sites recorded in Farm Herder and one recorded in Hudab. 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 protection and conservation.

**Table 5: findings at the proposed exploration site for EPL 8228**

<b>Heritage resources</b>	<b>Status/findings</b>	<b>Level of impact by proposed explorations</b>
Buildings, structures, and places of cultural significance	Farm houses	Low
Areas to which oral traditions are attached or which are associated with intangible heritage	None	None
Historical buildings	Dry stone klaar building in farm Helder	Mild
Landscapes and natural features of cultural significance	A river that runs through farm Hudab	Mild
Archaeological and paleontological sites	None	None
Graves and burial grounds	Two burial sites one in farm Helder and one on farm Hudab.	Mild - They are all fenced off. The ones in Farner Hudab are in a good condition while the ones in farm Helder are in a better condition
Movable objects	None	None

## 6.1 Detailed findings

### Farm Helder

#### Site 1: Burial sites

**Site coordinates:** -27.4949.04 19.2939.77.

**Description:** Fenced burial site (see **fig 3**) (the workers/ employees on the farm stated that, they have no idea who's grave it could be.

**Significance rating:** 3

**Vulnerability rating:** 4

**Records:** Photographs and fieldnotes

**Reversibility rating:** Irreversible

**Condition assessment:** Stable condition



*Figure 3: A burial site on farm Helder with Several graves (photo credits: Author 2023).*

**Site 2: Dry stone kraal**

**Site coordinates:** -27.4951.51 19.2925.44

**Description:** Old dry-stone Klaar / wall which was probably a klaar for the domestic animals.

**Significance rating:** 3

**Vulnerability rating:** 4

**Records:** Photographs and fieldnotes

**Reversibility rating:** Irreversible

**Condition assessment:** Stable condition



*Figure 4: A dry stone Klaar (photo credits: Author 2023).*

## **Farm Hudab**

### **Site 1: Burial site**

**Site coordinates:** -27.4409 19.2601

**Description:** Suspected to be a grave for the previous owner. They are fenced off and in a very good condition, most of the are recent.

**Significance rating:** 3

**Vulnerability rating:** 4

**Records:** Photographs and fieldnotes

**Reversibility rating:** Irreversible

**Condition assessment:** Stable condition



*Figure 5: Several graves -burial site (photo credits: Author, 2023)*



*Figure 5: War memorial on farm Hudap (photo credits: Author, 2023)*



## ***6.2 Field photographs***



***Figure 6: The receiving environment of EPL 8228 (photo credits: Author, 2023).***



*Figure 7: Public consultation at farm Helder during the site visit (photo credits: Author, 2023).*



*Figure 8: Existing vehicle tracks within EPL 8228 (photo credits: Author, 2023).*

## **7.0 Recommendations and Conclusions**

### **7.1 Management Recommendations**

At this stage it is important that the proponent 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. Within the boundaries of EPL 8228 lies concrete evidence that there was human occupation and there are people living there still given the number of historical and recent burial sites.

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

- a) At least a 100m buffer zone should be maintained from exploration activities and vehicle tracks off all burial sites recorded in both farm Hudap and Herder
- b) The project proponent 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).
- c) The vehicle tracks not to approach within 100m of any of the above-mentioned sites and should be deviated accordingly.
- d) That the foot print impact of the proposed exploration activities should be kept to minimal, to limit the possibility of encountering chance finds within servitude.
- e) That 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 of 2004).

## **7.2 Conclusions**

The basis of 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 and is likely to be of archaeological significance. Field survey established that the affected project area might have 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 Environment Management Plan (EMP).

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## Appendix 1)

The proponent is advised to implement the following management actions 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 database system
- 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 Forensic Laboratory, 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.	<p>Possible damage to previously unidentified archaeological and burial sites during exploration phase.</p> <ul style="list-style-type: none"> <li>• Unanticipated impacts on Archaeological sites where project actions inadvertently uncovered significant archaeological sites.</li> <li>• Loss of historic cultural landscape;</li> <li>• Destruction of burial sites and associated graves</li> <li>• Loss of aesthetic value due to exploration work</li> <li>• Loss of sense of place</li> </ul> <p>Loss of intangible heritage value due to change in land use</p>	<p>In situations where unpredicted impacts occur exploration activities must be stopped and the heritage authority should be notified immediately.</p> <p>Where remedial action is warranted, minimize disruption in exploration scheduling while recovering archaeological data. Where necessary, implement emergency measures to mitigate.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Accidentally discovered burials in development context should be salvaged and rescued to safe sites as may be directed by relevant heritage authority. The heritage officer responsible should secure relevant heritage and health authorities' permits for possible relocation of affected graves accidentally encountered during exploration work.</li> </ul>	<ul style="list-style-type: none"> <li>• Contractor /</li> <li>• Project Manager</li> <li>• Archaeologist</li> <li>• Project Environmental Control Officer (ECO) or Site Manager</li> </ul>	Fine and or imprisonment under the NHA	<p>Monitoring measures should be issued as instruction within the project EMP.</p> <p>PM/EO/Archaeologists Monitor exploration activities on sites where such exploration projects commence within the farm.</p>



### 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
<b>NB!</b> The procedure to be followed during the operation, decommissioning and rehabilitation phases are the same as they were during the exploration phase.								