

Date: 07 December 2020

The Environmental Commissioner

Department of Environmental Affairs and Forestry

Ministry of Environment, Forestry and Tourism

P. O. Box 13306

Windhoek, Namibia

Attention: Mr. Timoteus Mufeti

Dear Sir

Re: Archaeological Impact Assessment as a Requirement to the Consent Letter from the National Heritage Council (NHC) - Environmental Clearance Certificate (ECC) Application (APP-001870) for the Proposed Exploration of Dimension Stone on Exclusive Prospecting License (EPL) 7008 near Karibib in the Erongo Region, Namibia

OMAVI Geotechnical & Geo-Environmental Consultants cc (the Environmental Consultant) has been appointed by Naris Mineral Resources cc (the Proponent) to apply for **the Environmental Clearance Certificate (ECC)** and conduct an Environmental Scoping Assessment for **the Proposed Exploration Dimension Stone on Exclusive Prospecting License (EPL) 7008 near Karibib in the Erongo Region, Namibia** in accordance with the Environmental Management Act (EMA) (No. 7 of 2007) and the corresponding list of activities requiring an ECC (GN No. 29 GG No. 4878).

One of the documents required to accompany the Scoping Report and Environmental Management Plan (EMP), among other documents is a "**Consent letter from the National Heritage Council (NHC) in relation to archaeological heritage landscape protection**". Upon consultation with the NHC, we were informed that a consent letter would only be issued upon evaluation of an Archaeological Assessment Report by a qualified Archaeologist.

Consequently, OMAVI Consultants appointed Mr. Henry Nakale (an experienced and qualified Archaeologist) to carry out the required Archaeological Impact Assessment (AIA) for the proposed EPL site. An AIA for the site area was undertaken in October 2020, finalized on 1 November 2020 and an AIA Report compiled by the Archaeologist.

The AIA Report was submitted to the NHC on the 5th of November 2020 for evaluation and consideration of the issuance of the required Consent Letter from the NHC.

Accompanying this cover letter are:

- Copy of the Email communication with the National Heritage Council of Namibia (NHC)
- Archaeological Impact Assessment (AIA) Report for EPL 7008 submitted to the NHC.

Should you require further information on this matter please do not hesitate to contact us on the details provided above and below

Yours Sincerely,

Mr. Etuna Kanime or Ms. Fredrika Shagama (Environmental Assessment Practitioners)

OMAVI Geotechnical & Geo-Environmental Consultants cc

Email: info@omavi.com.na

Mobile: +264 81 478 6303 OR +264 81 826 4867

Email communication to the National Heritage Council (NHC): Archaeology Report for EPL 7008

Archaeological Assessment Reports to the EIA for EPL 6139 (Exploration for Dimension Stone & Industrial Minerals) and EPL 7008 (for Dimension Stone Exploration) near Karibib in the Erongo Region ↕ 🖨️ 📧

Inbox x



Fredrika Shagama <fshagama@gmail.com>

to rho1, rho2, luciapermitsnhc, info, Erica, bcc: Giesberta, bcc: me ▾

Thu, 5 Nov, 07:54



Good morning,

With reference to the email communication we sent to you on the 10th of September 2020 regarding the ongoing Environmental Assessment of the proposed exploration activities for dimension stone and industrial minerals on Exclusive Prospecting License (EPL) 6139 and EPL 7008 (for the exploration of dimension stone only) near Karibib in the Erongo and as response to the National Heritage Council of Namibia letter dated 18 September 2020, the Archaeological Assessments for the two EPLs have been completed. The attached files are the two Reports containing the findings of these Assessments/Studies for your reference and evaluation.

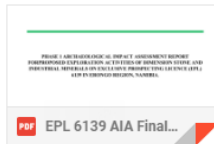
Please note that there was also a request for an Archaeological Assessment to be done for the third EPL, i.e. EPL 7241. However, due unforeseen circumstances such as ongoing arrangements with landowners to access the affected farms, the Archaeological Study for this EPL is not yet completed. Once it is completed, and the Report compiled, we will send it through for your evaluation too.

Best regards,

Fredrika for OMAVI Geotechnical & Geo-Environmental Consultants

Mobile: +264 81 407 5536 OR +264 81 826 4867

2 Attachments 📄 🗑️



4



Lucia Permits NHC

Received with thanks.

Wed, 11 Nov, 08:49



**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT REPORT FOR PROPOSED
EXPLORATION ACTIVITIES OF DIMENSION STONE AND INDUSTRIAL MINERALS ON
EXCLUSIVE PROSPECTING LICENCE (EPL) 7008 IN ERONGO REGION, NAMIBIA.**

Compiled by:

HENRY NAKALE

HENRY CHIWAURA

ELIOT MOWA

Compiled for:

Omavi Geotechnical and Geo-Environmental Consultants

Tel: +264818264867

Email: infor@omavi.com.na

Document Information

Item	Description
Proposed development and location	Naris Mineral Resources proposes to undertake exploration on the Exclusive Prospecting Licence (EPL) 7008 in the Erongo Region. The EPL is located 15km south of Karibib and covers a surface area of 169 hectares. The EPL overlies Farm Habis No.71 with its western boundary within the borderline that separates Farm Habis 71 and Portion 1 of Farm Habis 71.
Title	Proposed Exploration activities of Dimension Stone and Industrial Minerals on Exclusive Prospecting Licence (EPL) 7008 in Erongo District Region, Namibia: Archaeological and Heritage Impact Assessment Report
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
1:50 000 Topographic Map	
Coordinates	‘‘22,062, 15,851’’
Municipalities	Karibib
Predominant land use of surrounding area	Mining
Developer	Naris Mineral Resources
Heritage Consultant	Henry Nakale, Henry Chiwaura and Elliot Mowa
Date of Report	01 November 2020
Contact person	Henry Nakale +264816680633
Author(s) identification	Henry Nakale, Henry Chiwaura and Elliot Mowa (Archaeologists and Heritage specialist)
Project Number	001

Copyright

Authorship: This A/HIA Report has been prepared by Messers Henry Nakale, Henry Chiwaura and Elliot Mowa (Professional Archaeologist). The report is for the review of the National Heritage Council of Namibia.

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This report can however be reproduced by IDT and The National Heritage Council of Namibia for the purposes of the Archaeological and Heritage Management in accordance with the National Heritage Act, 27 of 2004

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 by Naris Minerals Resources.

Signed by



Acknowledgement

The authors acknowledge Omavi Geotechnical and Geo-Environmental Consultants for their assistance with project information as well as responding to technical queries related to the project.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	V
ABBREVIATIONS	VII
KEY CONCEPTS AND TERMS	VIII
BACKGROUND	- 11 -
LOCATION OF THE PROPOSED EXPLORATION ACTIVITIES.....	- 11 -
2 LEGAL REQUIREMENTS	- 13 -
TERMS OF REFERENCE	- 14 -
3 METHODOLOGY	- 15 -
3.1 ASSUMPTIONS AND LIMITATIONS	- 16 -
3.2 CONSULTATION.....	- 17 -
4 CULTURE HISTORY BACKGROUND OF THE PROJECT AREA	- 17 -
STONE AGE ARCHAEOLOGY.....	- 17 -
INTANGIBLE HERITAGE	- 18 -
5 RESULTS OF THE ARCHAEOLOGICAL/HERITAGE ASSESSMENT STUDY	- 18 -
5.1 ARCHAEOLOGICAL AND HERITAGE SITE	- 19 -
5.2 BUILDINGS AND STRUCTURES OLDER THAN 60 YEARS.....	- 20 -
5.3 BURIAL GROUNDS AND GRAVES.....	- 20 -
5.4 HISTORICAL MONUMENTS AND MEMORIALS.....	- 20 -
5.5 CUMULATIVE IMPACTS	- 22 -
6 DISCUSSION	- 23 -
8 RECOMMENDATIONS	- 23 -
11 CONCLUDING REMARKS	- 25 -
12 BIBLIOGRAPHY	- 26 -
13 APPENDIX 1: HERITAGE MANAGEMENT PLAN INPUT INTO THE EPL DEVELOPMENT PROJECT EMP	- 29 -
APPENDIX 2: HERITAGE MITIGATION MEASURES TABLE	- 30 -
APPENDIX 3: LEGAL BACKGROUND IN NAMIBIA	- 31 -

TABLE OF PLATES [PHOTOGRAPHS]

TABLE OF FIGURES

Figure 1. View of old windmill previously used for supplying drinking water to livestock now used to pump water for wild animals in the farm	15
Figure 2 Map indicating location of EPL 7008 and old windmill in reference to Karibib town	22

EXECUTIVE SUMMARY

This Archaeological and Heritage Impact Assessment (AIA/HIA) Report has been prepared to address requirements of the National Heritage Act, 27 of 2004. The study was commissioned by **Omavi Geotechnical and Geo-Environmental Consultants** to conduct this Archaeological and Heritage Impact Assessment (AIA/HIA) Study for the proposed exploration. The proposed exploration is located at in the Erongo of Namibia. This report includes an impact study on potential archaeological and cultural heritage resources that may be associated with the proposed exploration and exclusive prospecting license (EPL) on 7008 sites. This study was conducted as part of the specialist input for the Environmental Impact Assessment exercise. The proposed exploration consists of exploration activities of Dimension Stone on EPL 7008 in the Erongo Region. The project information has been passed to research team by Omavi Geotechnical and Geo-Environmental Consultants. Analysis of the archaeological, cultural heritage, environmental and historic contexts of the study area predicted that archaeological sites, cultural heritage sites, burial grounds or isolated artefacts were likely to be present on the affected landscape. The field survey was conducted to test this proposition and verify this prediction within the proposed exploration activities. The general project area is predominantly farming area.

The report makes the following observations:

- The findings of this report have been informed by desktop data review, field survey and impact assessment reporting which include recommendations to guide heritage authorities in making decisions with regards to the proposed project.
- Most sections of the project area are very accessible and the field survey was effective enough to cover all sections of the project receiving environs. However, some small portions of the proposed exploration site had limited access rocky outcrops.
- The immediate project area is predominantly marble mining and farming.

The report sets out the potential impacts of the proposed development on heritage matters and recommends appropriate safeguard and mitigation measures that are designed to reduce the impacts where appropriate. The Report makes the following recommendations:

- ❖ The exploration teams must be inducted on the possibility of encountering archaeological resources that may be accidentally exposed during subsurface construction prior to commencement of work on the site in order to ensure appropriate mitigation measures and that course of action is afforded to any chance finds.
- ❖ If archaeological materials are uncovered, work should cease immediately and the National Heritage Council of Namibia be notified and activity should not resume until appropriate management provisions are in place.
- ❖ The findings of this report, with approval of the National Heritage Council of Namibia, may be classified as accessible to any interested and affected parties within the limits of the legislations.

This report concludes that the impacts of the proposed exploration of the cultural environmental values are not likely to be significant on the entire development site if the EMP recommended safeguard and mitigation measures identified in this report.

ABBREVIATIONS

AIA	Archaeological Impact Assessment
ECO	Environmental Control Officer
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EM	Environmental Manager
EMP	Environmental Management Plan
HIA	Heritage Impact Assessment
LA	Local Authority
LIA	Late Iron Age
NHA	Nation Heritage Act, Act 27 of 2004
SM	Site Manager
NHCN	National Heritage Council of Namibia

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 authorisation 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 authorisation 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 minimising 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

Background

This Archaeological and Heritage Impact Assessment (A/HIA) Report has been prepared by Henry Nakale, Henry Chiwaura and Eliot Mowa for the purpose of Environmental Impact Assessment for proposed exploration activities of Dimension Stone on exclusive EPL 7008, Erongo region, Namibia. This report details the field study, results of the study as well as discussion on the anticipated impacts of the proposed development as is required by the National Heritage Act, Act 27 of 2004. It focuses on identifying and assessing potential impacts on archaeological resources as well as on other physical cultural properties including historical heritage resources in relation to the proposed exploration activities. Heritage specialists undertook the assessments, research and consultations required for the preparation of the report comprising archaeological and heritage impacts for the purpose of ensuring that the cultural environmental values are taken into consideration and reported into the EIA processes.

The study was designed to ensure that any significant archaeological or cultural physical property or sites are located and recorded, and site significance is evaluated to assess the nature and extent of expected impacts from the proposed exploration. The assessment includes recommendations to manage the expected impact of the proposed explorations. The report includes recommendations to guide heritage authorities in making appropriate decision with regards to the environmental approval process for the proposed development. The report concludes with detailed recommendations on heritage management associated with the exploration development work. Omavi an independent consulting firm, conducted the assessment; research and consultations required for the preparation of the archaeological and heritage impact report in accordance with its obligations set in the NHC as well as the environmental management legislations.

In line with National Heritage Act guidelines, the report provides:

- 1) Management summary
- 2) Methodology
- 3) Information with reference to the desktop study
- 4) Map and relevant geodetic images and data
- 5) GPS co-ordinates
- 6) Directions to the site
- 7) Site description and interpretation of the cultural area where the project will take place
- 8) Management details, description of affected cultural environment, photographic records of the project area
- 9) Recommendations regarding the significance of the site and recommendations regarding further monitoring of the site.
- 10) Conclusion.

Location of the proposed exploration activities

The proposed developments are located 15KM km south of Karibib and cover an area of 169 hectares. The proposed project will entail opening of the surface through open cast mining methods. This therefore include:
•vehicle, machinery and equipment

Dump trucks

Diamond wire-saw cutter and coring equipment

Excavator/front-end loader to scoop up sandy overburden

Down the hole (DTH) Drilling rig

Air compressors

Dozers to clear the vegetation along planned drilling sites access roads.

This A/HIA report is a component of a broader Basic Assessment Report and addresses the requirements of the NHA Act 27 of 2004 and Environmental Management Act 7 of 2007 in relation to the assessment of impacts of the proposed exploration on the cultural and heritage resources associated with the receiving environment. 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 auxiliary regulations.

The legislations require that an application for consent under subsection (6) must be made at least 30 days before work for the alteration or development of the listed building is proposed to begin and must be submitted is required. The NHA Act notes that any comments and recommendations of the relevant heritage resources authority with regard to such development have been taken into account prior to the granting of the consent, the heritage authority here being Local Authority (LA).

Both the national legislations and provincial provisions provide protection for the following categories of heritage resources:

- Landscapes, cultural or natural;
- Buildings or structures older than 60 years;
- Archaeological Sites, palaeontological material and meteorites;
- Burial grounds and graves;
- Public monuments and memorials;
- Living heritage (defined as including cultural tradition, oral history, performance, ritual, popular memory, skills and techniques, indigenous knowledge systems and the holistic approach to nature, society and social relationships) (Also see Appendix 4).

Terms of reference

The author(s) were instructed to conduct an AIA/HIA study addressing the following issues:

- Archaeological and heritage potential of exploration in the EPL area including any known data on affected areas;
- Provide details on methods of study; potential and recommendations to guide the NHC to make an informed decision with regards to authorization of the proposed development.

PHOGRAPHIC PRESENTATION OF THE PROJECT SITE



Figure 1. View of old windmill previously used for supplying drinking water to livestock now used to pump water for wild animals in the farm (Photograph © by Author 2020)

3 METHODOLOGY

The proposed exploration development requires clearance and authorisation from government compliance agencies including the heritage authority of National Heritage Council of Namibia. Key A/HIA objectives for this project are to:

- Fulfil the statutory requirements of the National Heritage Act, Act 27 of 2004.
- Identify and describe, (in terms of their conservation and / or preservation importance) sites of cultural and archaeological importance that may be affected by the proposed explorations. This study searched for sites and features of traditional historical, social, scientific, cultural and aesthetic significance within the affected study area; the identification of gravesites.
- Assess the significance of the resources where they are identified.

- Evaluate the impact thereon with respect to the socio-economic opportunities and benefits that would be derived from the proposed development.
- Provide guidelines for protection and management of identified heritage sites and places (including associated intangible heritage resources management that may apply).
- Consult with the affected and other interested parties, where applicable, in regard to the impact on the heritage resources in the project's receiving environment.
- Make recommendations on mitigation measures with the view to reduce specific adverse impacts and enhance specific positive impacts on the heritage resources.
- Take responsibility for communicating National Heritage Act and other authorities in order to obtain the relevant permits and authorization with reference to heritage aspects.

In order to meet the objectives of the A/HIA Phase 1 study, the following tasks were conducted: (i) site file (ii) literature review, (iii) consultations with the affected communities, (iv) completion of a field survey and assessment and (v) analysis of the acquired data and report production. The following tasks were undertaken:

- Preparation of a predictive model for archaeological heritage resources in the study area.
- A review and gap analysis of archaeological, historical and cultural background information, including possible previous heritage consultant reports specific to the affected project area, the context of the study area and previous land use history as well as a site search;
- Field survey of the proposed exploration site within the study area, in order to test the predictive model regarding that heritage sites in the area;
- Physical cultural property recording of any identified sites or cultural heritage places;
- Identification of heritage significance; and
- Preparation of A/HIA report with recommendation, planning constraints and opportunities associated with the proposed development.

Walking surveys were conducted in order to identify and document archaeological and cultural sites within the proposed exploration site. A formal settlement, grazing lands; farm roads, mine and main road infrastructures, distribution and other auxiliary infrastructures dominate the affected project area. The entire project area was accessible through a network of main roads, district roads and village tracks used to access the Farm. Although limited sections of ground surface were covered with grass and thick bushes, no identification of possible archaeological sites in surveyed areas were found. Photographs were taken as part of the documentation process during field study.

3.1 Assumptions and Limitations

The investigation has been influenced by the unpredictability of buried archaeological remains (absence of evidence does not mean evidence of absence) and the difficulty in establishing intangible heritage values. It should be noted that archaeological deposits (including graves and traces of archaeological heritage) usually occur below the ground level. Should artefacts or skeletal material be revealed at the site during commencement of the exploration, such activities should be halted immediately, and a competent heritage practitioner, NHC must be notified in order for an investigation and evaluation of the find(s) in accordance with the National Heritage council

existing chance find procedure regulation. (see Chance Find Procedure). Recommendations contained in this document do not exempt the proponents from complying with any national, provincial and municipal legislation or other regulatory requirements, including any protection or management or general provision in terms of the NHA. The author assumes no responsibility for non-compliance with conditions that may be required by the NHA as outlined in this report.

The field survey did not include any form of subsurface inspection beyond the inspection of burrows, road cut sections, and the sections exposed by erosion. Some assumptions were made as part of the study and therefore some limitations, uncertainties and gaps in information would apply. It should however, be noted that these do not invalidate the findings of this study in any significant way:

- The exploration team to provide link and access to the proposed site, will use the existing access roads and there will be no exploration beyond the demarcated site.
- Prior to this report no excavations or sampling were undertaken, since a permit from heritage authorities is required to disturb a heritage resource. As such the results herein discussed are based on indicators observed on the surface. However, these surface observations concentrated on exposed sections such as road cuts and clear farmland.

3.2 Consultation

The team consulted the farm owner who confirmed that the proposed development site has been used as mining land and is not aware of some potential cultural sites or activity associated within the project area. The study team also consulted the Farm owner for any reference to heritage material in the project site. The consultation assisted in verifying the potential of any archaeological and heritage resources on the proposed development site.

4 CULTURE HISTORY BACKGROUND OF THE PROJECT AREA

Stone Age Archaeology

Introduction

The aim of the study is to locate and map archaeological sites/remains that may be impacted by the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate the impacts.

Stone Age archaeology is prevalent in the larger geographical area such that archaeologists who have previously worked on the area documented a quite number of Stone Age site the area. It is not surprising to come across stone tools in the region. Banded ironstone is known to have been a favoured and desirable raw material for making stone artefacts and occurs on a number of sites that have been documented by the archaeologist and others throughout the Erongo Region. Most of the tools are spread very thinly and unevenly over the surrounding region, but a low-density scatter of tools can also be noticed. Previous researches on the province shows that Early Stone Age is very well represented at sites such as Twyfelfontein.

The ESA is generally associated with the earlier Oldowan industry (marked by crude choppers and other unifacial core tools), followed by the still large but better fashioned hand axes and cleavers of the Acheulean techno-complex (Deacon and Deacon 1999). The Faure smith Industry is characterized by a prepared core technology

that produced both blades and points, making it transitional between the ESA and the MSA (~ 250 000 to 40-25 000 years ago) (Porat *et al.* 2010; Wilkins and Chazan 2012; Walter *et al.* 2014). Until recently, the Faure smith Industry was poorly defined, being mostly identified based on the co-occurrence of Levallois points and hand axes (Beaumont and Vogel 2006: 224), and prepared cores, blades, and ‘side-scrapers on flakes’ (Beaumont 1990:79)

More technological and behavioural changes than those witnessed in the MSA, occurred during the LSA (~ 40-25 000, to recently, 100 years ago), which is also associated with *Homo Sapiens* (Barham and Mitchell 2008). For the first time there is evidence of people’s activities derived from material other than stone tools (ostrich eggshell beads, ground bone arrowheads, small bored stones and wood fragments) (Deacon and Deacon 1999). The LSA people are also credited with the production of rock art (engravings and paintings), which is an expression of their complex social and spiritual beliefs (Parkington *et al.* 2008). The MSA is better understood as a flake-technological stage characterized by faceted platforms, produced from prepared cores, as distinct from the core tool-based ESA technology (Barham and Mitchell 2008). At Wonderwerk Cave, the MSA component was associated with pieces of haematite and several incised stone slabs, most with curved parallel lines that add to the behavioural shifts that went beyond stone tools and ushered in the appreciation of art (Beaumont and Vogel 2006). In terms of characterization, the lithic succession at Wonderwerk Cave serves as a benchmark for the Stone Age sequence of the Northern Cape (Beaumont and Vogel 2006; Kusel *et al.* 2009). The sequence comprises an uppermost LSA sequence that contains Ceramic LSA, Wilton and Oakhurst industries. Some researchers have named the earlier LSA industry of the region as the Oakhurst industry (some have labelled this local variant the Kuruman), characterized by rare retouched artefacts, most of which are large scrapers that are oblong with retouch on the side.

Intangible Heritage

As defined in terms of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003) intangible heritage includes oral traditions, knowledge and practices concerning nature, traditional craftsmanship and rituals and festive events, as well as the instruments, objects, artefacts and cultural spaces associated with group(s) of people. Thus, intangible heritage is better defined and understood by the particular group of people that uphold it. In the present study area, very little intangible heritage is anticipated on the development footprint because most historical knowledge does not suggest a relationship with the study area per se.

National Heritage Council Database and Impact assessment reports in the proposed project area

Few CRM projects were conducted in the general vicinity of the study area.

5 RESULTS OF THE ARCHAEOLOGICAL/HERITAGE ASSESSMENT STUDY

The proposed exploration activities of Dimension Stone EPL 7008, Erongo Region, Namibia. The proposed exploration site has been established through consideration of biophysical, social, technical and cultural aspects.

The Basic Assessment process will aim to provide a final site selection of the proposed exploration site is based on biophysical, social, cultural and technical considerations. The following section presents results of the archaeological and Heritage survey conducted at proposed exploration development site.

Heritage resource	Status/Findings	Potential impact
Buildings, structures, places and equipment of cultural significance	Windmill	Minimal
Areas to which oral traditions are attached or which are associated with intangible heritage	None survives in the proposed area	None
Historical settlements and townscapes	None	None
Landscapes and natural features of cultural significance	None	None
Archaeological and paleontological sites	None	None
Graves and burial grounds	Family graves	None
Movable objects	None	None
Overall comment	Although disturbed the site has potential to yield buried archaeological sites	None

According to the current farm owner this farm was bought in 1904 from a Herero chief from Otjimbingwe named chief Zeraua. Marble mining started in 1908 around Karibib, therefore Karibib was regarded as the capital city of marble. There is no sign of any archaeological sites or heritage sites on this farm, the current farm owner Dr Schneider made it very clear from the beginning that he lived on this farm for over 80 years now and never came across any archaeological sites, apart from his family's graves. He further states that they will not be impacted by EPL 7008. Although, there is a historical borehole that can be impacted by the proposed exploration as it lies in EPL 7008 route (Coordinates -22,062, 15,851) which was dug in the 1940s and it is 70 meters deep and still in use. They use it to supply water to the wild animals found on this farm, such as; zebras, baboons, springboks and kudus (Figure 1).

5.1 Archaeological and Heritage Site

The proposed EPL 7008 sites did not yield confirmable archaeological material. The site is situated on an area that is heavily degraded probably from previous and current land use and from infrastructure developments. There's one homestead within the study area although few other homesteads are found in the vicinity of the quarry mining area. It is assumed that the chances of recovering more significant archaeological materials were seriously compromised and limited due to farming and mining history on the area.

Mitigation

The work done at EPL 7008 failed to obtain and record any archaeological heritage present and that the study has identified no significant impacts to pre-colonial archaeological material. Professional archaeologist must be retained to monitor during clearing on the affected areas. The results of the study indicate that the proposed development of the EPL 7008 will not have an impact of great significance on these and potentially other archaeological remains. Indications are that in terms of archaeological heritage, the proposed activity (i. e. the extension of exploration activity) is viable and no fatal flaws have been identified.

5.2 Buildings and Structures older than 60 years

The proposed EPL project site did yield one building or structures (windmill) older than 60 years and there's only one homestead found in the area under study.

5.3 Burial grounds and graves

The field survey did not identify grave yard.

Significance valuation for Burial Ground, Historic Cemeteries and Individual Graves

Although the possibility of encountering previously unidentified burial sites is low within the proposed EPL 7008 development sites, should such sites be identified during subsurface construction work, they are still protected by applicable legislations and they should be protected (also see Appendixes for more details). The significance of burial grounds and gravesites is closely tied to their age and historical, cultural and social context. Nonetheless, every burial should be considered as of high socio-cultural significance protected by practices, a series of legislations, and municipal ordinances.

5.4 Historical Monuments and Memorials

There are no archaeological materials found within the proposed EPL 7008.

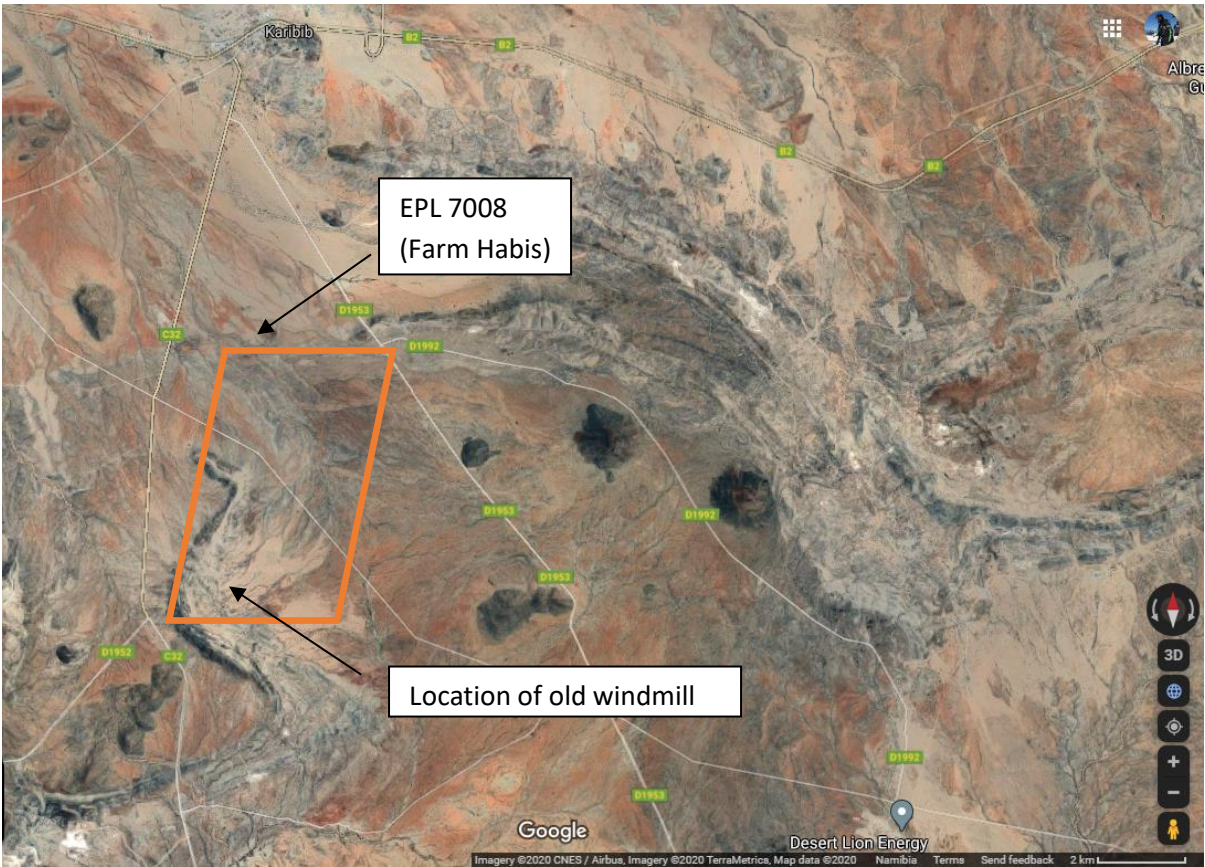


Figure 2 Map indicating location of EPL 7008 and old windmill in reference to Karibib town

5.5 Cumulative Impacts

Although the project area is degraded by mining, overgrazing and infrastructure developments, the proposed exploration will add to the cumulative impacts of the existing developments especially the vehicle movement and ground penetrating impacts of the EPL 7008 activities.

6 DISCUSSION

Various specialists conducted several Phase 1 Archaeological/ Heritage studies for various infrastructure developments and mining developments since 2004 in Namibia. The lack of confirmable archaeological sites recorded during the current survey is thought to be a result of one primary factor:

1. That proposed EPL site is located within a degraded area, and have reduced sensitivity for the presence of high significance physical cultural site remains, be they archaeological, historical or burial sites, due to previous disturbances resulting from developments and other land uses in the project area. This factor is exacerbated by the fact that the study was limited to general survey without necessarily conducting any detailed inspection of specific locations that will be affected by the proposed school development.

The absence of confirmable and significant archaeological cultural heritage site is not evidence in itself that such sites did not exist in the proposed EPL development area. In addition, some sections were not accessible due to vegetation cover. Significance of the sites of Interest (EPL 7008 site) is not limited to presence or absence of physical archaeological sites.

Chance finds procedures

It has already been highlighted that sub-surface materials may still be lying hidden from surface surveys. Therefore, absence (during surface survey) is not evidence of absence all together. The following monitoring and reporting procedures must be followed in the event of a chance find, in order to ensure compliance with heritage laws and policies for best-practice.

8 RECOMMENDATIONS

The study did not find any high-risk heritage with a potential to be disturbed by the exploration development. The following recommendations are based on the results of the A/HIA research, cultural heritage background review, site inspection and assessment of significance.

Recommendation 1

The Project Public Participation Process should ensure that any cultural heritage related matters for this project are given due attention whenever they arise and are communicated to the NHC throughout the proposed project exploration. This form of extended community involvement would pre-empt any potential disruptions that may arise from previously unknown cultural heritage matter that may have escaped the attention of this study.

Recommendation 2

The foot print impact of the proposed exploration should be kept to minimal to limit the possibility of encountering chance finds within servitude.

Recommendation 3

In situations where unpredicted impacts occur (such as accidentally disturbing a previously unknown grave), exploration should be stopped and the heritage authority notified immediately. In the unlikely event of chance archaeological material or previously unknown human remains being disturbed during subsurface exploration, the finds should be left in situ subject to further instruction from the project archaeologist or heritage authorities.

Recommendation 4

It is recommended that the old windmill and its drinking trough which are currently in use by the current farm owner be protected and by all means any exploration near the facility be minimised if not avoided.

11 CONCLUDING REMARKS

The literature review and field study confirmed that the 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, overgrazing, and stamping by domestic animals. Although the area is degraded, there is a possibility that the HIA Study Area Site of Interest is part of a wider archaeological and historical site within and significant cultural landscape. This report concludes that the proposed exploration development EPL 7008 may be approved by NHCN to proceed as planned subject to recommendations herein made and heritage monitoring plan being incorporated into the construction EMP (also see Appendices). The measures are informed by the results of the HIA study and principles of heritage management enshrined in the NHA, Act 27 of 2004.

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Objective									
<ul style="list-style-type: none"> • Protection of archaeological sites and land considered to be of cultural value; • Protection of known physical cultural property sites against vandalism, destruction and theft; and • The preservation and appropriate management of new archaeological finds should these be discovered during exploration. 									
No.	Activity	Mitigation Measures	Duration	Frequency	Responsibility	Accountable	Contacted	Informed	
Pre-Exporation Phase									
1	Plannin so	Ensure all known sites of cultural, archaeological, and historical significance are demarcated on the site layout plan, and marked as no-go areas.	Throughout Project	Weekly Inspection	Contractor [C] Naris Mineral Resources	SM	ECO	EA EM PM	
Exploration Phase									
1	Emergency Response	Should any archaeological or physical cultural property heritage resources be exposed during excavation for the purpose of exploration, activities in the vicinity of the finding must be stopped until heritage authority has cleared the development to continue.	N/A	Throughout	C Naris Mineral Resources	SM	ECO	EA EM PM	
		Should any archaeological, cultural property heritage resources be exposed during excavation or be found on exploration site, a registered heritage specialist or NHC official must be called to site for inspection.		Throughout	C Naris Mineral Resources	SM	ECO	EA EM PM	
		Under no circumstances may any archaeological, historical or any physical cultural property heritage material be destroyed or removed form site;		Throughout	C Naris Mineral Resources	SM	ECO	EA EM PM	
		Should remain and/or artefacts be discovered on the development site during earthworks, all work will cease in the area affected and the Contractor will immediately inform the Construction Manager who in turn will inform NHC		When necessary	C CECO	SM	ECO	EA EM PM	
		Should any remains be found on site that is potentially human remains, the NHC and Namibia Police Service should be contacted.		When necessary	C Naris Mineral Resources	SM	ECO	EA EM PM	
Rehabilitation Phase									
		Same as exploration phase.							
Operational Phase									
		Same as exploration phase.							

Appendix 2: Heritage mitigation measures table

SITE REF	HERITAGE ASPECT	POTENTIAL IMPACT	MITIGATION MEASURES	RESPONSIBLE PARTY	PENALTY	METHOD STATEMENT REQUIRED
Chance 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 exploration work which may disturb previously unidentified chance finds.	<p>Possible damage to previously unidentified archaeological and burial sites during construction phase.</p> <ul style="list-style-type: none"> • 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 construction work • Loss of sense of place <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"> • 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 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 activities. 	<ul style="list-style-type: none"> • Contractor / • Project Manager • Archaeologist • Project EO 	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 activities commences within the farm.</p>

Appendix 3: Legal background in Namibia

Extracts relevant to this report from the National Heritage Resources Act No. 27 of 2004,

Extracts relevant to this report from the Environmental Management Act of 2007,

General principles for heritage resources management